Queen's University

KINGSTON, CANADA

PRINCIPAL'S REPORT

1929-30

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PRINCIPAL'S REPORT

7th May, 1930.

To the Board of Trustees,
Queen's University.

Gentlemen:—

I beg to submit my report for the year 1929-30, the eighty-ninth session of the University.

Changes in the Trustee Board.

Since my last report changes have taken place in the trustee body. Right Hon. Sir Robert L. Borden, P.C., G.C.M.G., K.C., resigned as Chancellor of the University last spring and his resignation was received with great regret. His association with Queen's was singularly happy and his visits to Kingston were sources of great enjoyment to the Trustee Board. He took his duties seriously and made himself familiar with the work of the institution. The counsel of a statesman of such experience was always listened to with great attention and it was an honour to the University to have his name associated with its management.

In his place Dr. James A. Richardson was appointed Chancellor by the vote of the University Council. With his youth, and energy, and power of action it may be expected that, for many years to come, he will serve his Alma Mater in this influential capacity. No previous Chancellor can be claimed by Queen's as both undergraduate and graduate. Dr. Richardson, however, grew up in Kingston. The whole life of the University, official and unofficial, is familiar to him, and his acceptance of office has given the greatest satisfaction to the staff and to the student body.

Dr. Herridge, so long a trustee of Queen's, died in England in November last. He was a man of many graces of body and mind, and whatever he did had artistry in it. He spoke seldom in meetings of the trustees, but his words had weight. He was not a Queen's man in origin, but he had become so by adoption and by the many years of patient interest that he had taken in the concerns of the University.

The following is the registration for the session 1929-30 as compared with the previous session:

		1928-29	1929-30
ARTS			
Intra-mural—	First Registration	271	293
	Previously Registered	636	638
		—907	—931
	Summer School	492	510
Extra-mural—	First Registration	184	149
	Previously Registered	618	613
		—802	—762
	Summer, (not attending Summer School)	290	244
SCIENCE			
	First Registration	100	180
	Previously Registered	206	224
		—306	—404
MEDICINE			
	First Registration	54	44
	Previously Registered	260	252
		—314	—296
EXTENSION WORK			
	Banking, Fellows' Course	192	203
	Chartered Accountancy	329	426
		3632	3776
	Less registered in two Faculties	6	8
	Total Registration	3626	3768

Once again this registration constitutes a record for the University, a record that has brought its problems as well as its pride. It will be noted that the Arts intra-mural registration does not greatly differ from last year, and Medicine, with the regulations which the University has imposed upon itself, keeps its numbers practically at a standstill. The great increase is in the Faculty of Applied Science which has a first year registration of 180, about twice the usual number. The Summer School, in spite of its increased length, shows a slightly larger registration, but for several years the numbers have kept at about 500. The Queen's Summer School had the advantage of being the first venture of the kind in Canada, and drew students from the whole Dominion. Now that this work has been taken up by many Canadian Universities, the width of the field is becoming narrowed. Where the session is short, it is not likely that students will be drawn both from the Atlantic and the Pacific coasts to the same degree as formerly. The numbers in the Banking Course remain at a figure of about 200. When this work was first begun the pool, so to speak, stood at a high level. Now those desiring to take this course bear a fairly constant relationship to the number entering the banking profession from year to year. The students in Chartered Accountancy have increased this year by nearly 25%, as might be expected from the requirements of a profession which is becoming more and more important in the business life.

Faculty of Arts.

The attention of the trustees is drawn to several features in the report of Dean Matheson. When the present Science Building is completed it is to be hoped that the trustees will turn their attention to the provision of a better housing for the Arts Faculty. The present Arts Building would be overcrowded were it used only as an Arts building. It is, however, the general utility building of the University. Grant Hall, the Red Room, and the various classrooms are constantly being occupied for purposes that have nothing to do with the Faculty of Arts. When the new gymnasium is erected it is hoped that the social functions will be transferred from Grant Hall, but that will do nothing to diminish the pressure upon the classrooms. The building has been poorly designed; much space is wasted in broad and dark corridors. The basement is out of line with modern ideas of classroom work. There is real force in the Dean's point that the work of the Faculty suffers through the lack of private rooms for the staff. In a large department, such as English, no member of the staff has any privacy, and, if an interview with a student is desired, it has to be arranged for away from the classroom altogether. The provision for the members of this Faculty, while possibly fairly adequate a generation ago, is now out of date both by the increase in numbers and by the new attention given to individual dealing with students. The trustees have had before them several times plans for the utilization of the attic. None of these arrangements has been considered satisfactory. The additional space gained is not great and the construction of dormer windows is an expensive matter and of dubious architectural effect. Compared with the provision made for the teaching of Medicine and the various branches of Applied Science Arts is suffering, and yet the work of the Faculty of Arts will always remain the pre-eminent thing in the life of the University.

Extra-Mural Work.

The Principal, when he came to Queen's, was doubtful of the value of this work. The experience of these years, however, constantly growing intimacy with teachers in places of great importance who owed everything to the opportunity that Queen's extra-mural work had given them, the recognition of the fact that so many of the honours in the University were taken by students whose work has been done in the main extra-murally, has resulted in a complete change of view. The isolated student works under many disadvantages. The man who undertakes extra-mural work and carries it through successfully in face of the obvious difficulties, shows himself to be possessed of qualities of determination and grit that make for success in anything. To teach for a long day and then to spend the evening in mastering many subjects that obviously can be more easily acquired if a teacher is available, not only shows character, but creates character. The extent to which this work is being copied by other institutions is the best evidence of its real value.

Attention is drawn to the report of the Dean upon the percentage of those who lose their year. Nothing causes more worry in university life than the long lists of failures presented to the meetings of Faculty. There is obviously some maladjustment and the Dean suggests reasons for these depressing lists. Many students fail to adapt themselves to the new-found liberty. Both in the home and at school they have had some sort of supervision, whereas in the University they are free agents. At the age of about eighteen or nineteen they have to become responsible for their own doings, and the adjustment depends on the previous home life more than on any other factor. Too much early discipline produces a reaction, too little means heedlessness. Steadiness in this generation implies wisdom and restraint in the previous generation. There is force, too, in the Dean's observation that many students are here only because they are sent—"their study is still a schoolboy's task rather than a pleasure or even a duty". Keenness and curiosity are the main elements in any education, and, if these are not present, there is no likelihood of any intellectual distinction.

Faculty of Medicine.

In October last Dr. J. C. Connell, who had been Dean of the Faculty of Medicine for twenty-six years, resigned his position as Dean and also his professorship of Ophthalmology. With his resignation everyone felt that one of the pillars had been removed. When Dr. Connell first became Dean the Faculty of Medicine was a small thing, still living much in the memory of its independent existence as the College of Physicians and Surgeons of the City of Kingston. During his period of office Dr. Connell has seen the enormous changes in medical study and practice due to the extension of the germ theory of disease. In his time surgery, too, especially abdominal surgery, has been greatly extended, and the X-ray, with its diagnostic and curative effects, has come into being. The increased knowledge has meant the necessity for new laboratory accommodation, and the whole technique of medical education has altered. The task that fell to Dr. Connell needed not only knowledge but vision, not only vision but the practical power of securing funds and creating an organization to deal with the new situation. The Medical School of to-day, with its excellent standing, and with its splendid clinical facilities, is largely the result of his work, and his monument is close to hand. His name is already enshrined as one of the builders of Queen's.

As his successor in the Deanship Dr. Frederick Etherington was appointed by the trustees and is already putting into his work the organizing power that was evident during his command of the Queen's hospital overseas. It needs no prophet to see that the next twenty years of medical education will be filled with great problems. How in six years or in sixty years is any man to be trained so as to study and to master those ever widening fields of knowledge? How is the general practitioner to be produced? How is the health of the community to be preserved in outlying places where the practitioner has no laboratory to which he may resort and no facilities for making tests that are required? The community is concerned with the increasing cost of medical care. As things are, that cost is inevitable, and yet it bears most hardly upon that section of the populace which does not come within the reach of charity and yet is far from the ease of wealth.

This year is marked in the Medical Faculty by the establishment of *The Arthur R. Elliott Chair of Preventive Medicine.* The funds for this Chair have been provided by Mr. Samuel Insull of Chicago as a mark of his friendship for that eminent Queen's graduate. The trustees have appointed to the Chair Dr. John Wyllie, M.A., MB., C.H.B., B.Sc., D.P.H. Dr. Wyllie comes to us with a wonderful record of distinction and of service for a man so young. It is felt that in his hands this Chair will claim distinction from the start.

An interesting and unsought piece of evidence as to the consistently good teaching of the Medical Faculty is found in the report of the Regents of the State of New York with regard to the results of the New York State Medical Board examinations. Queen's, with 169 papers written, was 100% successful; Toronto, 95%; and McGill, 86.4%.

Faculty of Applied Science.

The new Geology Building, and the arrangements for the transference of the teaching of Hydraulics to the old gymnasium are the main matters in the report of Dean Clark. There has been this last session a remarkable increase in the number of Science freshmen. Where one hundred were expected one hundred and eighty were actually received with the result that the Executive Committee had to make hasty arrangements for additions to the staff of first year instructors. The question is as to whether this increase in the freshmen year is likely to be repeated. If it is, the Faculty will have to consider the limiting of numbers. Dean Clark gives an interesting study of "student mortality". Of one hundred students entering the first year about sixty-seven reach the final year. If the number of entrants averaged one hundred, the number of students in the Faculty at any one time would be about 325. The staff can handle this number. If, however, there were in the entrance year, for several years in succession, any such number of freshmen as this year has seen, the two upper years of the Faculty would soon become congested, and many problems would emerge that have not heretofore had to be faced. In the Medilal Faculty the policy of limitation of numbers has been accompanied by such an improvement in the standard of work that this policy would seem to be indicated, should the Faculty of Applied Science be in danger of being swamped.

A pleasing feature of Dean Clark's report is the extent to which research in physics is being pursued by a brilliant group of young men. Many factors, not easy to define, contribute to a result such as this. One decade may find brilliance centring in this particular study; another decade may find the interest shift. The speculative interest to-day is, however, centring on physics, and the support for an idealistic philosophy is coming from a quarter from which a generation ago the arrows of destruction were expected. The Chown Research Chair, with Dr. Gray, has been a great element in the production of this group of research workers.

Dean of Women.

Miss Hilda Laird, Dean of Women, has been on leave for sixteen months. Her place has been taken by Miss J. J. Stuart as Acting Dean. The trustees may congratulate themselves upon the satisfactory way in which Miss Stuart has carried out her duties. It is not easy to step in and take for a limited time another's place, but she has made herself the friend of the girls and by her academic experience and distinction she has been able greatly to aid them in their work.

Student Life.

The year has been a singularly happy one in the relationship between staff and students. The Alma Mater Society has taken its duties with great seriousness, and the men at the head of things have watched developments and have recognized that their positions meant the carrying of loads. Mr. J. C. Britton, the President of the Alma Mater Society, has had a success due not merely to his popularity as a student and an athlete, but to his genuine concern for the good name of the student body and his resolution that student obligations shall be observed. It is well that the names of this group of student leaders be recorded. Harold Neville, President of the Arts Society, M. T. Macfarland, President of the Aesculapian Society, H. P. Dickey, President of the Engineering Society, Mary White, President of the Levana Society, and J. Lorne MacDougall and the Journal staff, have all been a conspiracy for order and decency. In hands such as these Student Government has been a real force.

Athletics.

The football team has for the sixth time in the last eight years won the intercollegiate championship after a series of games likely to be remembered. The last few seconds of the return match with Toronto University in Toronto, when Queen's was beaten by a kick to the dead line, were like a scene out of a story book. The playoff, however, resulted in a comparatively easy victory for our men. The experiment of a student coach succeeded, as it was bound to do, seeing that the coach was Harry Batstone, a great athlete, a good student and a most modest and sincere-minded man.

The basketball team likewise won the intercollegiate championship. Championships indeed in these days seem to fall into our lap.

Debating.

One of the most interesting features of student life during the session has been the awakening of a keen interest in public speaking and debating. In former years this was encouraged by having upon the staff a man whose business it was to care for this subject. Now, however, without any professor to give training, the students themselves are taking the matter with great seriousness and are having the excellent discipline that comes from enthusiasm and practice. Almost any afternoon in the Arts building might be found a group, in this classroom or in that, trying to follow parliamentary procedure and sharpening their wits in discussion of public affairs. The comment has often been made that university life in Canada, and particularly the graduate body of Queen's University, has not made its due contribution to public affairs in the Dominion. It is quite likely that this interest in public speaking may be running through all the universities just as in the community at large the Little Theatre is now a matter of genuine moment. At all events the emergence of this wholesome interest in debating in Queen's as the result of a purely student movement is worth recognition and encouragement.

Medical Care of Students.

The trustees will remember the arrangement under which each student pays $4.00 into the sickness fund to insure hospital attention for a period of one week. Should he require to remain longer in hospital he pays at the rate of $5.00 a week, the University finding the balance amounting in general to about $9.00 a week. The presupposition of such an arrangement is that the student body is a healthy group and that ailments to be cared for are temporary. This year, however, there have been three cases of tuberculosis among the students, one of these showing itself at the beginning of the session with the result that the pupil was in hospital for five months, the illness being of long previous standing. Another man, a student in the preparatory year, spent months in hospital with some illness which the medical skill of the whole faculty assisted by the resources of the Connaught Laboratories in Toronto was unable to determine. Two other boys, in their final years, one of them a hockey player, and another a boxer, without any previous warning, showed symptoms of acute tuberculosis. These cases are most distressing in themselves, and no cost is too great to lavish upon crippled youth. The system, however, needs overhauling, for it is not reasonable that this university fund should be drawn upon for cases which in their origin are altogether outside of student life. The intention of the scheme was to deal with such temporary sickness as might occur during the winter months, not with grave constitutional afflictions.

Gifts.

The $50,000.00 given by Mr. Samuel Insull for the institution of the Chair of Preventive Medicine has already been referred to.

Sir R. Leicester Harmsworth followed up his former gift of the bust of Wolfe by a fine portrait of Admiral Sir Charles Saunders, K.B., 1720-1775, by R. Brompton. This painting is a replica by Brompton of his portrait of Saunders which is in the Great Hall at Greenwich Hospital. Admiral Saunders commanded the fleet at Quebec at the time of the Wolfe expedition.

The trustees will have noticed the splendid collection of Eskimo carvings and domestic work, gathered in the Yukon by Mrs. Constantine, and presented by Mrs. Etherington as part of the George Taylor Richardson Bequest.

The family of the late J. B. Carruthers has placed in Carruthers Hall, on loan, his portrait.

Epilogue.

It is a satisfaction to feel that I leave the University at a time when, if outward things can be considered as any measure of education, the institution is at a point not previously reached. It is right that I should give the trustees some account of my stewardship during these thirteen years.

When I was appointed in the autumn of 1917 the war was at its height and the long struggle of Passchendale was wearing upon the temper of the people. The University, in spite of large and unwonted help given by the Government, was going behind financially to the extent of $70,000 or $80,000 a year, and the burden of this deficit was being borne by Dr. James Douglas, the Chancellor. Thirty-two members of the staff were overseas. The Faculty of Medicine was working twelve months in the year to produce the men so anxiously required for service. The Faculty of Arts and the Faculty of Applied Science were almost depleted of their men. The New Arts Building, with Grant Hall, was a great hospital. The Old Arts Building and Nicol Hall were being used for Vocational training.

The first task was finance, and, to meet the conditional promise of $500,000 made by Dr. James Douglas, if another $500,000 could be secured, Mr. Chown and I were busy most of 1918 and part of 1919. That the additional $500,000 was raised was due in no small measure to the Carnegie Corporation which gave $250,000 as a recognition of the Queen's services in the war. Another Endowment Campaign undertaken in 1926 resulted in contributions amounting to about $850,000 and out of this Campaign sprang the Alumni Association which has already proved its value in holding the scattered graduates together.

The close of the war meant that the halls of the University were again thronged. Little by little the buildings were recovered from the military authorities, and the problem of doing something for the men who came flocking back during the winter of 1918-19 weighed heavily upon the trustees and staff. An effort was made to get the help of the Dominion Government for the carrying on of a Summer School from April until October, 1919, by means of which returned men might be delivered from six months of idleness. When the Government refused such aid, the trustees themselves undertook this Summer Session, and, at a cost of something like $25,000, saved ninety men a year of college life. In the rush of those days academic standards had to yield in many ways to the necessity of getting men on their feet. Matriculation requirements for the overseas man had to be lightened. All kinds of preparatory classes were instituted, and few now remember the extent to which the staff of the University gave themselves in this splendid reconstruction work. There was, however, a rare earnestness in the returned man, and the experiences of war transmuted themselves into character and determination. These years immediately after the war were full of joyous experiment.

When things once again began to run in normal channels, the reorganization of the Medical School was undertaken, and with that there was linked the hospital scheme, outlined before war broke out, by Dean J. C. Connell in consultation with Dr. James Douglas. New Chairs were instituted; salaries were put upon a different basis; the government backed the hospital rebuilding scheme by an annual grant of $80,000 for five years, afterwards extended for an additional two years. For nearly a decade this hospital rebuilding scheme has been in process, and the end now in sight is a hospital of which not Kingston only, but the Dominion, may very well be proud. The possibility of removing the clinical end of the Medical School to Ottawa was carefully looked at, and finally rejected for reasons which most feel were valid.

In the Faculty of Arts a new system of studies was introduced following in the main the practice of the universities of the United States. The Commerce Courses were instituted by Dean Skelton, who also brought about an arrangement with the Ontario Institute of Chartered Accountants, under which the whole teaching of those looking forward to this profession was conducted extra-murally by Queen's.

The increased attendance brought constantly before the trustees the necessity of increased accommodation. New buildings, however, meant more adequate heating facilities. As it was not possible to add further to the load carried by the University Heating plant situated in the east end of Fleming Hall, the old Knitting Mill, situated on the water front, was bought, and on its site there was erected the present handsome and satisfactory Plant with its facilities for the handling of cargoes of coal. This, to begin with, was a joint effort of Hospital Governors and University Trustees, but for convenience of operation the University has now assumed the whole burden. With adequate heating facilities, the way was clear for an extended building programme, and the Library and Ban Righ Hall were the first results.

For years before the war the Alumnae had had the building of a Women's Residence in view. The war had upset their plans, and when, on the conclusion of the war, the Endowment Campaign was undertaken the Alumnae generously laid their plan aside to avoid clashing with the larger scheme. The endowment having been secured, the women again took up their project to find that the enormously increased building costs had made their original scheme impracticable. To the money they had gathered, about $80,000, the trustees added a like sum, and the result is the splendid Women's Residence at the corner of University Avenue and Queen's Crescent. The Goodwin and the Macdonnell houses, as they came into the market, were bought for the same purpose. Altogether one hundred and three women are housed in these three residences. The problem, however, remains a problem, for, with the growth of the University, there are, in spite of these three houses, as many women living in lodgings as before the initiation of the scheme. By great good management the Ban Righ Hall administration committee is setting money aside for further residence provision.

Another of the plans that had been far advanced before the war was the provision of a new Library, and for this purpose Dr. Douglas had given $150,000. When on the establishment of peace it again became possible to consider so heavy an undertaking the Douglas gift had increased by the accumulation of interest to $220,000, and the Government of Ontario, by a special grant of $150,000, made possible the realization of the plan. The "Douglas Library" is a noble memorial to one of the great friends of the institution. The facilities afforded the students have greatly increased the amount of student reading.

The death of Captain George Taylor Richardson in the war touched the minds of all the Queen's men of his generation. In everything that constituted good sportsmanship he had become almost a legend while he lived. Queen's, in its recovery from these dire days, had his memory enshrined in the Stadium called after his name, the gift of his brother, the present Chancellor of the University. From the day on which, with restrained and delicate ceremonial, the Stadium was dedicated, the athletic fortunes of the University seemed to undergo a change. In the last eight years the rugby team has six times won intercollegiate championships. In the excitment that attended the early victories it may well be that more attention than was fitting was given to this sport. The influence, however, upon the whole Queen's constituency was distinctly good. Now, in these changed times, it has come to be taken almost for granted that the Queen's team reach the place of honour.

All the graduates of the time before the war remember the old Skating Rink with its barrel vault and its picturesque wooden gallery. This was destroyed by fire and a vast building, holding four or five thousand, was raised in its place. This, too, fell a victim to flames and all but took the Physiological Laboratory with it to destruction. The new rink is fireproof, with artificial ice, but in hockey there has been no miracle of new interest, and intercollegiate hockey has practically disappeared.

The general student life has been much encouraged by the purchase and the alteration of the Orphans' Home for a Students' Union. The Union has been in operation for fifteen months only, but all are agreed that it is serving the purpose for which it was intended. This common ground on which all faculties meet is a great agency in securing coherence in student life.

The trustees to-day are having presented to them the final plans of the Science building which they have already sanctioned, a building in which Geology and Mineralogy will be nobly housed. The Athletic Board of Control has undertaken the erection of a gymnasium on the ground immediately to the east of the Union, and when this building is finished the old gymnasium will be turned over to hydraulics and machine shop work. On the conclusion of all this programme the trustees will doubtless give consideration to the Faculty of Arts and to the strong plea made by Dean Matheson.

With regard to University finance it is well to note the extent to which the situation, in so far as it is related to government assistance, has been changed as the result of the war. In 1913-14, the last complete pre-war year, the whole revenue of the institution amounted to $182,000. Towards this the Government of Ontario contributed $14,000. In 1914-15 $23,000 was the government grant, divided as before between the Medical Faculty and the Faculty of Education. In 1916-17 it amounted to $111,000, this sum being given because of the straits into which the war had plunged the institution. In the same year the Douglas gift towards the deficiency was $61,000. In 1918-19 the total revenue was $357,000, of which $137,000 came from the Government. For the current year 1929-30 the total revenue has been $694,000, of which $350,000 has been voted by the Parliament of Ontario. An equal sum is being contributed by the Government to the University of Western Ontario. It may be seen that, during these years 1916-29 the whole situation has altered owing to the fact that the University, as to half of its expenditure, is maintained by the Government. There has been no effort thus far to control university policy. The Government seems to be satisfied that the revenue is wisely administered, and the relationship to the University has always been of the most pleasant character. It is, however, evident that changes in policy, covering the whole field of education, are in view. The Government, faced with an enormous expenditure on primary, secondary, and university education, is taking stock of educational methods. Higher education has become a fad. The numbers trying to pass the matricuation examination are clogging the machinery, and 30% of the students entering the University with matriculation standing fail to reach the final year. The matriculation examination as a test of intellectual quality is at present much under fire.

And so I take leave of this work which has absorbed thirteen years of my life. The presidency of a University is ranked in the United States as one of the dangerous trades and the average tenure of office there is about six years. The labour is infinite and the labourer is on a pinnacle exposed to the criticism both of the witting and of the unwitting. It is expected of him that he be a scholar, an educationalist, a financier, an administrator, a man of deep silences, and an orator able to maintain his place on any platform. To be lacking in any one of these aspects is to be met with the charge that the old days were better—as indeed to sentimentalists they always are.

In my work I have been associated with members of staff whom I shall always think of with deep affection and admiration. Dr. Cappon and Dr. Goodwin, who were the Deans of Arts and of Applied Science when I entered on office, need no added word from me. They carried the burden of a day when over everything there rested the cloud of narrow means. In these days of war confusion and distress G. Y. Chown stood out in all his size. He helped Queen's to turn many a corner and all honoured him for his entire devotion to the University which began for him by being a hobby and came in the end to be his very life. Dean Skelton I have already referred to, and when he went to Ottawa it was as though a brother had departed. His place was taken by Professor John Matheson, Head of the Department of Mathematics. Dean Matheson had already been through many years the friend of the student and his appointment was hailed with joy both by staff and undergraduate body. He has wholly justified his position and our regret has been that the labours of the place have overtaxed his strength. The impossible must be secured and he must be induced to take his work less gravely. Dean Clark had in the post-war years the task of reconstructing a Faculty in which in several departments, the entire personnel changed. Under him the research work has advanced by strides, but he has never lost touch with the mining men of Northern Ontario. Dean Connell has been counsellor and friend, and the reorganized Medical School is his splendid contribution.

I find it hard to say without exaggeration what Dr. McNeill has been to me and to the University in these years. He was the great discovery of my time. The student and the teacher stepped from the scholarly work which he loved to undertake the infinite detail which falls to the lot of the Registrar and Treasurer. He has, by exercising care, made the financial situation easier for everyone and has produced budgets which have provided for everything by insisting on care on the part of all. His door has never been closed to professor or student. Men who have gone to him with a grievance have come out feeling that they had had every kind of consideration. The student has understood that a curriculum was no soulless piece of machinery but a necessary device for securing a broad education. I have laboured with him day by day for ten years. I have seen him often weary but never impatient, never uncharitable. The Trustees must see to it that so valuable and so valued a servant of the University is not overburdened.

In what days may still be mine I shall think with pride that I was associated with Canada and with Queen's in these great years of strain and of reconstruction. In such times one has really lived.

Respectfully submitted,

R. BRUCE TAYLOR,
Principal.

REPORT OF THE DEAN OF THE FACULTY OF ARTS

I have the honour to present herewith the annual report of the Faculty of Arts.

Registration.

Winter session	1928–29	1929–30
Intra-mural students	907	931
Extra-mural students	808	762
Summer session	1928	1929
Students at Summer School	492	510
Extra-mural students not at Summer School	290	244

Of the 510 attending the Summer School in 1929 only 450 were regular students in Arts courses. The remaining 60 were mainly interested in physical training.

Of the 931 intra-mural students in the session just closing, 293 were registered for the first time. Of these, 107 were women as compared with 102 a year ago; and 186 were men as compared with 169 a year ago. In the session 1928-29 there were registered 395 women and 512 men. In 1929-30 there were 389 women and 542 men. The number of women is thus seen to have decreased from last year by 6, while the number of men has increased by 30. Last year 43.5 per cent. of the students were women. This year the percentage of women is 41.8.

In 1924-25 the total intra-mural registration in Arts was roughly the same as it was for a few years preceding 1914, that is about 650. Since 1925 the number has steadily increased, and it is now nearly 50 per cent. greater than it was 6 years ago, or than it was for the three or four years immediately preceding the war. In the same time the number of full time members of staff has increased by about 25 per cent.

This increase of staff was partly necessitated by the increasing number of students in Applied Science.

The figures show that while there has been a marked increase in the number of intra-mural students, there has been in the past year an equally marked decrease in the number of extra-mural students. It is not correct to suppose that the decrease in the latter is due to the increase in the former. The main increase in the number of intra-mural students is found among those registered for the first time, that is, among those who would not in any case be registered extra-murally. The decrease is found chiefly among the teachers of the country. While Queen's has been a pioneer in this type of University extension, it is not certain that she is retaining her pre-eminence in it in recent years. The increasing rigidity of our regulations and the gradual tightening of our standards have no doubt exposed prospective students to the attractive offerings of other institutions. Whether this is to the advantage of Queen's remains to be seen; but it cannot be forgotten that not a few of our most brilliant students have for many years been attracted to the University in the first place by the advantages offered through the extra-mural work.

Changes in Staff.

French: Mr. Harcourt Brown resigned, and Mr. S. B. Wynburne (B.A., Dublin) was appointed lecturer in his place.

German: Miss Hilda Laird, Dean of Women, was given leave of absence for a year. Her work in German has been taken by Dr. Macgillivray, with tutorial assistance.

English: Professor J. A. Roy was given leave of absence for a year, and his place was taken for the session by Mr. E. Duthie (M.A., Aberdeen). Mr. R. W. Cumberland resigned, and Mr. J. R. Theobald (M.A., Oxford) was appointed lecturer in his place.

Economics and History: Professor W. A. Mackintosh was given leave to spend half of his time in an important research for the American Geographical Society. Mr. N. McL. Rogers, M.A., B.Litt., Ph.D., (Oxon) was appointed as Associate Professor to take the remaining part of Professor Mackintosh's work and to take also that of Mr. J. P. Pritchett who resigned as lecturer in History. Mr. M. K. Inman resigned as lecturer in Economics, and his place was filled by the appointment of Mr. E. F. Nash, B.A. (Oxon).

Mathematics: On account of the unusually large class in the first year of Applied Science, Mr. W. T. Laing (B.A., Queen's) was appointed lecturer in Mathematics for the session. Mr. K. R. MacGregor, B.Sc., took that part of the work in Mathematics which had previously been done by Mr. A. G. Timmins.

Physics: Mr. W. V. Ball resigned his position as lecturer, and his place was filled by the appointment of D. C. Rose (M. Sc., Queen's, Ph.D., Cambridge).

Chemistry: Mr. A. G. Cadenhead resigned as lecturer, and his place was filled by the appointment of Mr. L. A. Munro (M.A., Dalhousie, Ph.D., McGill) as Assistant Professor.

Biology: Mr. R. A. Ingalls (B.A., Acadia) was appointed lecturer to take the place of Mr. H. C. White.

The Work of the student.

The report on this topic must of necessity read very much like other reports on the same topic in recent years. The poor student is as poor as ever and the good one is very good. The great body of students range themselves in a fairly uniform line between these two extremes. The relative numbers of those who fail in the examinations and those who pass have not varied greatly in the past few years. Between 50 and 60 per cent. of the total number registered have no failures recorded against them; while 14 or 15 per cent. have failed badly enough to lose their year. Nearly 3 per cent. have failed in their year for the second time and are required to withdraw from the University. Of those who lose their year for the first time, about one-half do not return to pursue their studies. Nearly 10 per cent. of those registered in any one session do not return again to the University, because of their failure to succeed.

The reasons for the failures of so many students have formed a topic of discussion for many writers and teachers. The one most stressed by many is the failure of the freshman to adapt himself to the new conditions of study in which he finds himself. The difficulty of many freshmen in this matter is a real one which every live instructor appreciates. But it does not explain altogether the general situation. An explanation which applies perhaps much more widely is that many young students are sent to the University at the end of their high school course in much the same way as they are sent to the high school at the end of their public school career. They are here, not because they particularly want to be here nor because they have any interest in study, but because they are sent. Their study is still a schoolboy's task rather than a pleasure or even a duty. There is no need to point out the depressing character of this attitude of mind. Another explanation lies in the fact that to an increasing extent in recent years a course in Arts has become a prerequisite, or at least a very desirable preparation, for entrance into certain professions and occupations. For many students who are in Arts for this reason, study is not an end in itself but a distress that must be endured for the sake of the rewards to follow. Other reasons for failure appear in goodly numbers, but they are largely local or individual rather than general.

The student in Engineering or in Medicine is more fortunate. He has a definite goal in view. A definite purpose, which is so often lacking in the Arts student, is a distinct incentive, even to a dull student. It is usually found, as might be expected, that the percentage of failures is higher in Arts than in the other faculties.

The teaching staff can only say that it does its best to meet the situation. The instructors are in general alive and sympathetic, and it cannot be laid to their charge that the weak ones have failed. The standards required for credit have been well maintained, and the students who finally succeed in pressing through to the degree have had an experience well worth while.

The Work of the Staff.

The year has been a pleasant one from the point of view of the staff. A fine spirit of cooperation pervaded every part of the work. This appears to be all the more remarkable when it is considered that facilities for members of staff to meet, to get acquainted or to exchange ideas, do not exist. Since the days of the old senate room, where members of faculty used to meet to read or smoke or talk together, there has been a tendency for the staff to fall apart and for the common university spirit to disintegrate into departmental units. It may seem strange, but it is a fact, that there are instructors who have worked in the arts building throughout the session just closed but yet have never met personally to become acquainted. This is not as it should be, and it is not in the best interests of the common task which the staff has been given to do.

During the past session a committee composed of the heads of all the departments in Arts, or their representatives, met once a week to consider a revision of the courses leading to a degree. Each meeting lasted about two hours and was filled with serious consideration, hot debate, and good humour. Various members of the committee have commented independently on the moral and social value of these meetings and of the need of some permanent means of achieving it. As soon as possible a room must be set apart in the arts building to correspond with the old senate room. The value of such a room can hardly be overestimated in promoting the good of the whole university. It might be interesting to note that the arts building is the only building on the campus in which there is no common room in which members of staff may meet to talk over general or academic topics. This lack has meant more real and serious loss than is apparent on the surface.

Freshman advisers.

To meet the problem of the freshman who fails, the faculty three years ago adopted a system by which members of staff become the official advisers of members of the incoming class. During the past session 39 of the regular instructors in Arts had students in their classes who were registered for the first time. These students were assigned in groups of four to eight to the 39 instructors. The freshmen were invited to consult their advisers freely at any time throughout the session on any matters pertaining to their life or work at Queen's. The advisers, on the other hand, were asked to keep in touch with their clients and to help them in any possible way by suggestion or encouragement.

There is some difference of opinion as to the actual benefits that have come from the system. The great majority of the advisers, however, report that they regard the plan as well worth while. They state that while they can see no evidence of good done to many of the freshmen, yet to many others the value has been quite apparent. The plan is young yet, and it will be continued. There seems to be sufficient reason to expect much from it when it has become more firmly established.

Revisions of degree courses.

During the past session a representative committee of faculty has been engaged in revising the courses for degrees. Already they have arranged a new form of course for the pass degree, and it has been accepted by the faculty and will go into effect in the fall. The new course does not make radical changes, but it simplifies the requirements and makes it more properly a general course than it was before. There is less specialization in it and rather more of the purely optional. One of the main purposes in the revision, however, was to separate as far as possible the pass students from the honour students in order that higher standards might be set for the work in honours. The new arrangement will undoubtedly be more satisfactory for both pass and honours than the old.

The committee will resume its work in the fall with a view to a thorough examination of the requirements for the honour degree.

Scholarships and Fellowships.

A good number of excellent students presented themselves during the past year for all the available Scholarships and Fellowships. A year ago the travelling Research Fellowship of $500 was awarded to Mr. Norman E. Gibbons for work in Bacteriology. The resident Fellowship of $500 was awarded to Mr. John D. Stewart in Mathematics and Physics. The two Fellowships at $250 each were awarded to Miss Mary E. White in Latin and Greek and to Miss B. Maude Whattam in English and History.

A number of those who received these Fellowships in past years have proceeded to graduate work and have done honour to the University. It would be one of the University's most profitable investments to increase the number of these Fellowships for the use of promising students. Not a few of our best graduates are unable for financial reasons to proceed at once to advanced study. They hope to do so at some later date, and in the meantime they go about the business of gathering enough money to finance it. Most of them, however, become interested in other pursuits, and never realize their earlier hopes. Finished scholars are the University's best recommendation, and they are best selected at the critical time of their graduation.

The Arts Society and Levana Society.

These Societies are an important factor in the life of the faculty. During the past session the presidents, Mr. T. H. Neville and Miss Mary White, provided excellent leadership.

Congestion in the arts building.

The most important single bar to progress in the faculty of arts at the present time is the crowded and unsatisfactory condition of the arts building. The main programme of lectures in arts is confined to the morning hours from 8.00 to 12.00 o'clock. Only preparatory classes in certain languages and classes in Mathematics for first year students in engineering are scheduled for the afternoon. The morning hours were selected for three main reasons,—first to avoid conflict with laboratory classes which were scheduled for the afternoon, second to leave an unbroken afternoon to serious students for study, and third to permit of two distinct sets of days per week for lectures, namely Monday, Wednesday, Friday, and Tuesday, Thursday, Saturday. The afternoon does not lend itself to the plan in the third of these reasons as Saturday afternoons cannot be used. There are more lecture hours per week than there are rooms available in the forenoons. This difficulty has so far been met by putting certain lectures in the afternoon, by transferring certain classes to other buildings, and by using staff offices as lecture rooms. There are still a few hours available in the afternoons of Monday, Wednesday, and Friday, but it is not easy to provide a suitable timetable to permit of their use. There are no more rooms available in other buildings, and in the meantime staff offices must be used as classrooms.

The result is that certain instructors have no office in which to work between lectures. There is no common room in which they may sit and read. There is no place where they may meet students for private interviews. Their only resource is to go home, or go out for a walk. The work of the faculty cannot flourish under such conditions.

A recent survey has shown that the arts building is used for more hours per room in the forenoon alone than any other building on the campus is in the whole day. In addition, however, the arts building is used in the afternoons and evenings for a certain number of lectures, and for various other activities such as year and club meetings, parades of the O.T.C., and those most destructive of all university affairs—dinners and social functions.

Two solutions are usually suggested for the problem of congestion. The first is the use of afternoon hours for lectures. According to the present system of lecture hours, however, only Mondays, Wednesdays, and Fridays may be used for this purpose. Their use would of course afford some small relief; but it would not to any great extent correct the situation. This matter was to have been taken into consideration during the past session; but on account of possible contingencies arising out of the deliberations of the faculty committee on the revision of courses it was decided to postpone it for the time.

The second solution proposed is to fit up the attic of the building to provide further class rooms. This proposal should be entertained only on the clear understanding that it would be solely for the purpose of temporary relief.

The tendency in building about Queen's and the Kingston General Hospital in late years has been to make all new buildings of a permanent type with that attractiveness which gives pleasure in the using of them. If aesthetic environment is of value anywhere it must surely be so where young men and women are acquiring that background of culture and that sense of the beautiful in form and spirit which consciously or unconsciously will become a directing force in their lives. It will therefore be a crime against the future of the university and against all the generations of young people who will enter its halls if arts is permitted to lag behind the other faculties in the attractiveness and usefulness of its material equipment.

The solution can lie only in such provision as will allow of bright and airy rooms for classes, office accommodation for the staff which will enable professors to perform their functions fully, a place where instructors may meet for the development of a corporate spirit, and a general attractiveness which will leave wholesome impressions on the growing minds of the students. This solution must ultimately take the form of a new building, which will house a certain number of departments, and an extensive alteration and renovation of the present building. This cannot be done in a day, but all plans adopted in the meantime for temporary relief should be adopted in the light of this necessary future programme.

Respectfully submitted,

J. MATHESON.

REPORT OF THE FACULTY OF APPLIED SCIENCE

I have the honour to present herewith the annual report of the thirty-seventh session of the Faculty of Applied Science. The enrolment by years and courses is as follows:

BY YEARS

First Year	180
Second Year	84
Third Year	81
Fourth Year	51
Graduates	8
	404

BY COURSES (Exclusive of the First Year)

	2nd Year	3rd Year	4th Year
A. Mining and Metallurgical Engineering	21	20	13
B. Chemistry	5	7	......
C. Mineralogy and Geology	1	3	......
D. Chemical and Metallurgical Engineering	15	14	8
E. Civil Engineering	13	6	8
F. Mechanical Engineering	13	16	13
G. Electrical Engineering	15	14	8
H. Physics	1	1	1
	84	81	51

In the report of last year a four per cent increase in registration was noted and it was there stated that the general upward trend was continuing as expected. This year has seen an increase of nearly thirty per cent which was entirely unexpected. This increase is accounted for by the increased registration in the first year. It need hardly be stated that this has brought a very heavy strain on the teaching staff and on the buildings.

Work of the Year

In spite of the difficulties entailed by the large numbers the work of the year has gone along very well indeed, and a general spirit of harmony and co-operation has prevailed.

Attendance

As pointed out last year regulations regarding attendance were discontinued for the final year. It is too early to speak confidently of the result but staff opinion is certainly not unanimous in the belief that the step was a wise one. There are few cases of genuine slacking, however, and the same earnestness of purpose and assiduous attention to work has prevailed.

Staff

There have been few changes in the staff. When Professor E. L. Bruce, who had been head of the Mineralogy department since 1919, was appointed to the Miller Memorial Chair in Geology, a new man to fill his place had to be found. We were extremely fortunate in securing J. E. Hawley, M.A. (Queen's 1920, Wisconsin, Ph.D., 1926), and the result of the year has justified the choice.

In the department of Chemistry Mr. A. F. G. Cadenhead resigned to take a position with the Shawinigan Power Company and L. A. Munro, M.A., Dalhousie, 1922; Ph.D., McGill, 1926, was appointed to fill his place.

The sudden influx of students last September made necessary a number of emergency appointments for first year classes. Rev. J. O. Watts, M.A., who assisted in a similar emergency ten years ago, was good enough to take over a part of the work of the Physics department. In Mathematics W. T. Laing, B.A., was apointed to help in taking care of the large classes. Through the hearty co-operation of the members of the staff a difficult situation was met successfully.

Increase in Fees

During the session, the Faculty decided to recommend to the Board of Trustees that the fees for the Science course be increased from $130 to $165, exclusive of laboratory and student interests. This recommendation was adopted and will go into effect for first year students next session and for students in other years the following session. On the basis of present registration this will mean an increase of revenue of about $12,500 per year and if the registration increases as is expected the sum will be much greater.

Matriculation Requirements

For a number of years, for entrance to the Science Faculty, Queen's has required ten papers of Pass and seven of Honour Matriculation. Heretofore, besides English, Mathematics and British History, either two languages or one language and Experimental Science have been required on the Pass side while English and Mathematics together with a language or experimental science have been required on the Honour side. This year the faculty decided to raise the requirements so that hereafter twelve papers of Pass Matriculation will be necessary with the same honour requirement as before. A student may substitute Modern History or an honour language not already offered for one of the Pass Languages. The result will be that the normal Pass Matriculation will be English, Mathematics, Ancient and Canadian History, two languages and Experimental Science. One of these languages will usually be Latin although not necessarily so. The organization of the schools in Ontario will bring this result in most cases however. A student may offer honour history or another honour language instead of Latin. As a matter of fact, at the present time a considerable majority of the matriculants offer Latin. There is a type of man who is capable in most ways but who has a hearty dislike for Latin. Under the above arrangements he may matriculate without this subject. Unless Latin is well taught it is of very doubtful value particularly to the kind of boy intending to enter the Science Faculty. Under the new arrangement it can no longer be said that poor students are electing to enter science because of the slight Matriculation requirement on the pass side.

Growth and Plans for the Future

As already pointed out there was a sudden increase in registration in the first year. This means that next year that there will be a corresponding increase in the second year work and later in the higher years. It is impossible to say whether the increase in the first year will be repeated next session, but the increase in fees, the rise in the Matriculation requirements, and the present financial depression are bound to have considerable effect. It is not probable that there will be the same rush of entrants. The past history of first year registration is clearly such as to indicate an ebb after the surge of last session. It would be folly, however, to fail to be prepared for a fairly large registration.

Miller Memorial Professorship

As already mentioned, Dr. E. L. Bruce was appointed last spring to this important chair. This professorship established in memory of Dr. W. G. Miller, former professor of Geology in Queen's, was made possible through the generous interest of a number of mining companies and individuals. Professor Bruce spent practically all of his time with a relatively small group of graduate students and in his own researches. The enthusiasm of these students who have been working with Dr. Bruce in the field of Pre-Cambrian Geology is but one indication of the success of this new chair. As with the Chown Research Professorship in Physics, the atmosphere created by a group of enthusiastic advanced students working with a professor who is free to devote himself to them and their problems has a profound influence on the work of the whole department. Professor Baker speaks of this influence in a letter, a part of which I quote here; speaking of the work in the Geology department he says: "Our work in this department has gone very smoothly this session, with more interest being manifested in Geology than is usual. Five second year students in science have already indicated their intention of proceeding with Course C (Geology and Mineralogy). This is more than we usually have in one year and I attribute a certain amount of this interest to the improved atmosphere that has been created by the establishment of post-graduate work under the Miller Memorial appointment."

Dr. Bruce says: "Two graduate courses have been given this session, one dealing with Pre-Cambrian Ore Deposits, the other one with Metamorphic Geology. In the first of these there are four students; in the second six, including the four registered for the first course. Of these six students three are candidates for the M.Sc. degree. The M.Sc. candidates have had, in addition to the courses given above, directed special studies in connection with their theses. A seminar was held two evenings in each month to discuss current geological literature. Field work was done during the fall term and it is hoped that a week of special investigation of some area of Eastern Ontario can be arranged following examinations.

"The research work carried on by students consists of the following. *Geology of the Basin of the Yellow Knife River*, N.W.T., *Mineral Constituents of the Grenville Gneiss and Palaeozoic Basal Sandstone in the Vicinity of Kingston, The Dufault Lake Granodiorite*, Rouyn, Quebec, and *Precipitation of Gold in Silica Gels.* My own time has been rather fully occupied by the lecture courses and in assisting in the investigations by students but I hope to be ready to present at the meetings of the Royal Society in May a study of the sedimentary gneisses of Northern Saskatchewan.

"The number of students is as large and their interest in the work as keen as could be expected. The chief need is scholarships or part time assistantships that will make it possible to attract students. Graduate schools in the United States offer inducements to good students and it is difficult to hold them here or to attract them for the year's graduate work.

It is very pleasing to be able to report that definite arrangements have been made with certain of the largest graduate schools in Geology in the United States to accept the satisfactory completion of a year of graduate work at Queen's as equivalent to a graduate year taken at those institutions."

Needs

In the report of last year, considerable space was given to the urgent needs of the Faculty. Most of these bid fair to be met in the building program now contemplated by the Trustees. The addition to Nicol Hall (already in process of construction) will relieve the most serious need in the more advanced work in Mining and Metallurgy. The new laboratory will be ready for occupancy next session and no doubt the old "mill" will soon be no more than a memory.

The need in connection with the development of our work in Hydraulics is also to be met in the near future. The erection of a new gymnasium which seems probable will make available the present inadequate "gym" for other purposes. While the entire building cannot be taken over at once the arrangement now made between the Athletic Board of Control and Professor Ellis will enable him to make use of the basement, for a beginning at least.

The decision to erect a fine new building on Union Street for the departments of Geology and Mineralogy will solve many problems. In this building the two departments named will find ample room for growth and development for many years and no doubt space can be spared for certain classes from the New Arts Building whose walls are already bulging with the pressure of students.

As soon as the departments of Geology and Mineralogy move out of Ontario Hall the Physics department will be able to work to much better advantage. More room for lectures, laboratory classes and research will be available and it may be expected that the work of the department will improve greatly.

If present plans prevail, Chemical Engineering will get its much needed room in Ontario Hall and the Chemistry department will be given the additional space it needs in Gordon Hall.

Aside from these departmental growing pains there will be but few troubles arising from our rapid growth except the minor difficulties of the equipment and staff. Equipment will be needed in most departments partly because of the larger numbers of students and partly because apparatus wears out and becomes obsolete. The machine shop in particular will need new machinery, since much of what is in use is very old and should be discarded. This part of the work of the mechanical engineering course is of great importance. In a recent report of a committee of the large group engaged in the Investigation of Engineering Education under the auspices of the Society for the Promotion of Engineering Education the importance of shopwork in the course for Mechanical Engineers is emphasized. There is no higher authority on such matters and the views of the committee coincide with our own. It would be very unwise to curtail this part of our work. The expense for this equipment might be spread over a period of years but a number of new machines should be purchased when the shop is moved into the old "gym" if possible.

In several departments there will have to be additions to the staff in the lower grades. However nearly all if not all this expense for men and equipment, will be met by the increased revenue from fees. Professor Baker writes regarding such equipment: "The large freshmen year registration will involve additional requirements in Petrography the session after next and I have felt that the necessary petrographic microscopes for the enlarged classes would come as a heavy expense if all borne in one year. For that reason I would suggest that an appropriation of $600 be now made so that within the next year I may be able to select some additional instruments at an advantage in price." Dr. Neish recommends that the attic of Gordon Hall be equipped with a lecture room and a laboratory to relieve present needs. With some readjustment of existing laboratories, the department will be able to handle the load of teaching next session. This seems to be a wise course to pursue particularly as it appears impossible to provide for the work in Chemical Engineering outside Gordon Hall next session.

Scholarships

There are very few scholarships of importance in the Science Faculty and it is the desire of the staff to have a small number established in the earlier years of the course particularly. These should be large enough to be attractive and numerous enough to ensure the competition of a sufficiently large number of students to raise the standard of the work. Competition for one or two prizes is always confined to a small group, but if the number of such prizes is large enough the student of even moderate ability feels that he has a chance. If the number competing represents a fair proportion of the whole number then the effect is to raise the level of work at once. The probability that such scholarships will be established in the near future is rather remote in spite of the fact that the staff when raising the fees went a little farther than it otherwise would have done in order that there should be funds for this purpose.

Limitation of Numbers

The staff has given careful consideration to this most important matter during the past session. The facts are briefly as follows. The registration in the first year since honour matriculation became necessary is as follows:

1921	48
1922	61
1923	71
1924	82
1925	78
1926	83
1927	110
1928	100
1929	180

Over a period of years since 1923 the students in the Faculty have been distributed in the various years as follows:

	1924	1925	1926	1927	1928	1929
First Year	82	77	84	110	100	180
Second Year	54	70	67	63	86	84
Third Year	55	50	62	61	61	81
Fourth Year	47	48	46	58	54	51
Graduates	5	3	3	3	5	8
	243	248	262	295	306	404
Preparatory	25	18	24	25	36	39

Using this table as a basis the following expectations may be calculated. When 100 students register in the first year, 82 will proceed to the second year, 76 to the third year and 67 to the final year, and a total of the students in the Faculty will be about 325. Of course these figures cannot be regarded as anything more than a rough indication of what is probable. In a similar manner we may arrive at the probable distribution in the various courses. With these facts before them the staff arrived at the general conclusion that if the number registered in the first year were to exceed 200, we should be unable to handle them properly in the upper years without a large addition to our buildings. Up to 200 we feel that we can carry on with no change in our organization save minor additions to equipment and to the staff in the lower grades. These additions can be financed out of the increased revenue, which would amount to about $20,000 annually.

The increase in the fees and the rise in the matriculation requirement will both operate to cut down the numbers, at least temporarily. It is to be expected that the increase in fees will affect good and poor students alike. The Faculty felt when the fees were increased that there should be a provision for scholarships so that the able boy could expect to secure help through scholarships. Reduction of numbers through increased fees may have the effect of keeping out the very best material in the country. Certainly the Queen's constituency is more affected by increased fees than would be those of either of the larger universities.

A questionnaire submitted to the freshman class while they were *fresh* elicited some rather interesting points. The answers to the questions showed beyond doubt that for the most part the decision to take up a science course and at Queen's was deliberate, in many cases made several years ago. The decision seemed to be based on a knowledge of Queen's, derived from graduates, students, teachers and friends. Some of the items are "Lower living cost," "Small university with intimate relationships with professors," "Small city with few distractions." In connection with the choice of a science course the following appeared again and again, "Liking for Science or Engineering," "Best fitted for the work of a Science Course."

We may expect, then, after the effect of the higher matriculation has worn off, that the upward trend will again become noticeable and sooner or later we may expect to have to face the question of limitation in the Science Faculty. Perhaps another way may be found.

Engineering Society

It gives me great pleasure once more to mention the indispensable work of the Engineering Society. The co-operation between the members of that body and the staff has been one of the most gratifying things in Queen's during recent years. Mr. H. E. Dickey has maintained the high tradition of the office of President of the Society. Besides filling this office most capably he has been a prominent member of the senior rugby squad and captain of the senior basketball team and withal a good student.

Respectfully submitted,

A. L. CLARK,

Dean.

ANNUAL REPORT, MEDICAL FACULTY

Session 1929-30

I have the honour to submit herewith the report of the seventy-seventh session of the Faculty of Medicine.

The registration for this session, 1929-1930, is as follows:

First year	44
Second year	57
Third year	53
Fourth year	52
Fifth year	44
Sixth year	46
	296

Areas from which First Year students are drawn:

From	Kingston	7
“	Ontario, excluding Kingston	31
“	all Ontario	38
“	British Columbia	3
“	Michigan, U.S.A.	1
“	Quebec	1
“	Prince Edward Island	1
		44

First registration, advanced standing in second year:

From	Kingston	1
“	Ontario, excluding Kingston	0
		1
“	Quebec	1
“	Newfoundland	1
“	New York, U.S.A.	1
“	New Brunswick	1
“	British Columbia	2
“	Nova Scotia	1
		8

Of the routine work of the Faculty there is little unusual to report. Teaching has been carried on in a satisfactory manner.

The extensive plans laid down some years ago for the reconstruction of the general hospital are being brought to completion. By the end of 1930 the old main building and Watkins' wing will have been transferred into a modern fireproof structure providing administration offices and some sixty-three new rooms. As a result of these changes the Hospital will be a credit to the city and to the University, and will effectively fulfil its double purpose of caring for the sick, and providing facilities for the training of students for the practice of Medicine.

There have been few staff changes. In November last Dr. J. C. Connell retired from the office of Dean of the Faculty, and also from his position as Head of the Department of Ophthalmology. This is not the place to attempt to evaluate the character of the service which my predecessor has been able to render to the Faculty, to the University, and to the cause of Medical Education in Canada, but it may be said that the action of the Senate in proposing him for the honorary degree of Doctor of Laws has met with general approval. Dr. F. A. Cays was made Acting Head of the Department, and Dr. C. E. O'Connor appointed as Associate Professor.

Preventive Medicine.

Owing to the unwillingness of the local civic authorities to cooperate with the University in establishing a Department of Public Health, the scheme put forward last year to this end did not materialize. Now, however, through the generosity and interest of Mr. Samuel Insull we have been able to institute this needed branch, and Dr. John Wyllie of Glasgow has been appointed Head of the Department. Both by training and experience Dr. Wyllie is peculiarly fitted for the post. The Faculty will be materially strengthened by this appointment.

Biochemistry.

It is generally agreed that there is need for rearrangement in this department. Plans are under consideration and will be duly submitted.

The following post-graduate lectures were given during this session:

Nov. 21—Dr. J. Hepburn, Toronto: "Angina Pectoris and Coronary Thrombosis."

Dec. 18—Dr. J. G. Fitzgerald, Toronto: "Why Vaccines and Sera?"

Jan. 24—Dr. W. L. Ritchie, Montreal: "Some Differential Points in X-Ray Diagnosis."

Feb. 21—Prof. C. H. Best, Toronto: "The Physiological Significance of Histamine."

Respectfully submitted,

F. ETHERINGTON,

Dean.

REPORT OF THE ACTING DEAN OF WOMEN

I have the honour to submit the following report for the year, 1929-'30.

The registration of women students is as follows:

Winter session, 1929-'30.		
Intra-mural—First Registration	108	
Previously registered	282	
		390
Extra-mural		327
Summer School, 1929		241
Summer, extra-mural (not attending Summer School)		111
		1,069

Nine intra-mural students withdrew from the University before the end of the Winter Session. One Freshette withdrew in the first week. One finished her Course at Christmas. One withdrew because of the death of her father. One was asked to withdraw from residence on account of ill-health. One left to be married.

Seventy-four students, eighteen of whom are First Year, live at their own homes in or near Kingston.

The question of suitable housing for the women students who come from points outside Kingston, other than the hundred who are accommodated in Ban Righ Hall and the two Annexes, is still a burning one. About seventy of these, if they consider Ban Righ not too difficult of access before an "eight o'clock" on a winter morning, have their meals there. A very few have their meals in their rooming-houses; others at "eating places" nearby. On occasion the Dean of Women would need a sixth sense plus second sight when both landlady and out-student appeal to her for judgment on some point at issue. There are students *and* students, as well as landladies *and* landladies, and, naturally the wrong combination sometimes occurs. All of which being interpreted, points to the still urgent need for more Residences.

Rumors of the glorious liberty enjoyed by those outside, tend to unsettle some restive souls in Residence, and it is mostly due to the exaggerated value which these Freshettes, with a vision not yet properly orientated, put upon the contrast, that, now and again, they find themselves shorn of their legitimate privileges. For the Ban Righ House Council has been taking its duties seriously, and it is now an established fact that Student Government, by winning their respect, has helped the Freshettes eventually to develop a sense of responsibility and loyalty towards the House.

The comparative immunity from illness and consequent anxiety accounts in large measure for the "smooth going" of this Session. There has, fortunately, been no operation required, nor has there been any epidemic.

To take an affirmative view of this question of health, a good interest has been evinced in physical training generally, and sports in particular. Ground Hockey and Softball matches were keenly contested in inter-year games. Intercollegiate Meets for Tennis, Ice Hockey, and Basket Ball resulted in one championship—the Tennis Doubles—coming to Queen's. Many exhibition games have also been played at home and abroad, and several of our athletes have been called upon to referee Collegiate games at Trenton, Napanee, Picton and Kingston.

This has been an important year in the history of The Women's Intercollegiate Debating Union. Queen's had the honour of entertaining McMaster on her first appearance in the Union on November 25th, when, it is also worthy of note, the subject chosen by the four Colleges in the Union was the one submitted by Queen's. Also, on February 22nd, a meeting of the Executive of the Union was held at Queen's, when Parliamentary procedure was adopted for the Intercollegiate Debates. The movement was initiated by Queen's, and a Queen's student presided at the meeting. Parliamentary procedure will be incorporated in the Constitution, if unanimously approved at the end of two years. Queen's has been placed second in the League, Toronto winning the Trophy. Intramural debating has also received an impetus from the adoption of Parliamentary procedure, as many more are now emboldened to take part in the discussions, from the floor of the house.

The following Fireside Vocational Talks were given to keenly interested audiences:

January 20th—Miss Mary Deeves of the Robert Simpson Company, Toronto, on "Opportunities in the Large Departmental Store."

February 2nd—Mrs. Boris Hambourg, on "The Modern Field of Music."

February 20th—Doctor Marian Hilliard, on "Medicine, and the Nursing Profession."

March 11th—Miss Berta Hamilton, of the Department of Social Service, University of Toronto, on "Social Service."

March 26th—Miss Winnifred Barnstead, Director of the Ontario Library Schools, on "The Librarian."

Each evening, groups of students were given opportunity for a more intimate discussion with the lecturer. A noteworthy innovation—Mrs. Hambourg's Talk on Music—is significant of an interest in the Fine Arts, as are also the much appreciated Sunday Evening Musicales held, once or twice a month, in the Common Room.

The Queen's University Alumnae Association helped Levana to finance the Vocational Talks.

Ban Righ is indebted for gifts of various kinds to the Hon. W. F. Nickle; The Summer School, 1929; Levana; Ban Righ House Council; Miss Redden, Miss Drummond, and Miss Barnstead.

To the first Model Session of the League of Nations, held at the University of Toronto from February 21st to the 23rd, Levana sent as delegates their President, Mary White, and also Sarah Common, representing the Grand Duchy of Luxembourg. Sarah Common, chief delegate for Levana, spoke on European Tariff Union. Amongst other notables from far and near, Sir Eric Drummond and Sir Herbert Ames attended the sessions. The Assembly attempted to forecast the coming Eleventh Assembly to be held at Geneva next September. There were seven out-of-Toronto women delegates, two from Vassar, three from McGill, and two from Queen's.

It is very satisfactory to note the distinct effort being made by the Employment Bureau of the General Alumni Association, through Mr. G. J. Smith, to help the women students in their search for temporary or permanent employment.

Levana has been highly honoured in the person of the President, Mary E. White, who has received the $1,250 travelling scholarship of the Canadian Federation of University Women—the first Queen's graduate to be so honoured. It is not only academic prowess that this scholarship recognizes, but the good community spirit with which Miss White is so generously endowed, and which her long connection with Queen's has fostered. Miss White purposes studying Classics for the next two years at Oxford.

An able Executive has assisted the Levana President in their many extra-curricular activities, but in future they will also make their influence felt, it is being hoped, more directly in the Classroom and in the November examination results.

The Levana Constitution has been changed so that the Levana Council will act as an advisory board to Freshettes, and, as example speaks more loudly than words, the new President of Council must herself have good academic standing.

The above Report bears witness to another year's satisfactory progress on what are seen to be good traditional lines.

Before I conclude, I would offer my most cordial thanks for the unstinted help that has been proffered me by all and sundry during this intercalary year. At the end of the coming Summer School, it will be with the greatest regret that I shall take my departure from so many friendly places and people.

Respectfully submitted,

J. J. STUART,

Acting Dean of Women.

REPORT OF QUEEN'S SUMMER SCHOOL, 1929

It is a pleasure to report that no signs of decrepitude are visible in the life of this the twentieth session of the Summer School. The general attendance is larger than that of 1927 or 1928, and the energy for both work and play has been well maintained. The policy of making the term seven weeks in length has been again justified in our ability to complete with less strain the work of one-half session.

The number of men students in attendance, 269, exceeds that of women, 241, by rather more than the usual margin. Of the women, sixteen are nuns. We are still drawing students from the more distant provinces although in lessened proportion. British Columbia furnished 4, Alberta 8, Saskatchewan 20, Manitoba 4, Quebec 34, New Brunswick 5, United States 4, and China 1, the remaining 430 being from Ontario, making a total of 510 as compared with 492 in 1928. The city of Ottawa sent us 33, Toronto 28, Peterboro 7, Brantford 5, Hamilton 4, and London 1.

A brief summary of the academic work and the instructors in the departments is as follows:

Biology courses 1, 2, 10a, 12b, 20a, 23b, were given to 66 students and 4 visitors by Professors MacClement and Earl, and Mr. Boyd.

Chemistry courses, 1, 2, 21b, and 35a, were given to 50 students and 9 visitors by Professors McRae and Frost.

Economics courses 1, 10, 25a, 33b, were given to 33 students and 13 visitors by Professors Knox and Sutherland.

In *English,* Professor Alexander with Mr. Haddow and Mr. Irvine had 172 students and 38 visitors in the various classes numbered 1, 2, 10a, 22a, 44b, and 45a.

French courses 1, 2, 12, 35a, were given by Professors Campbell, Conacher and Hicks. French 2, was taken by 54 students divided into two classes, and altogether the students in this language numbered 108, with 24 as visitors.

Geology 1, given by Mr. Sine, had 35 students and 2 visitors.

German A and 2, given by Professor Macgillivray, had 6 students registered, and 8 as visitors.

Greek given by Professor Tracy and Mr. Shurtleff had 12 students and 4 visitors in Greek A, 1, and 42b.

History had 111 students and 27 visitors in four classes, 2, 3, 13, 18a in Queen's and three classes 30a, 31b, and 100 in the Archives at Ottawa, the former given by Messrs. Pritchett and Macfarlane, while the latter were in charge of Professor Trotter.

Mr. Hugill and Mr. Shurtleff had 50 students in *Latin* 1, 2, 32a, and 48b.

Professors Miller, Johnston and Morgan had 61 students and 37 visitors in *Mathematics* courses 1, 2, 10a, 11b, and 12a.

Mineralogy 1 with Mr. Sine had 14 students.

Philosophy 1 and 2 were given by Professor Jackson to 58 students and 19 visitors.

Dr. Flammer, Dr. Gray and Dr. Rose had 55 students and 17 visitors in *Physics* 1, 2, 12a, and 13b.

The instructors report a satisfactory degree of attention and energy in connection with the classes.

At a conference between members of the Summer School Committee and representatives of the Summer School Association, a number of reasonable requests were put forward. The students asked (1) that no examination be placed on the first day of the fall opening of the Public Schools, which is the Tuesday following Labor Day. (2) That September examination results be issued as early as possible so as to permit intelligent registration for the winter session. (3) That for the same purpose Summer School courses be announced in the Autumn before. (4) That the timetable of the Summer School be made to permit that three half courses in the sciences be taken in one summer. The Committee promised to consider and accede to these as far as possible.

The recreational features of the summer were carried through very excellently, the emphasis apparently is passing from indoor dancing to outdoor sports. A costume parade was a brilliant and excellent entertainment, and was singularly free from objectionable features.

In response to an invitation from Queen's Summer School Association, a representative from Toronto Summer School was a guest at the last dance of the term. It is hoped that this may be only the beginning of a spirit of fraternity among Ontario Summer Schools.

Some evidence is shown this year of a desire for review courses for graduates of our own or other universities. Five students already holding degrees are known to be registered this summer and others may not have indicated their academic standing. Such courses for review of university subjects may well be needed if Ontario High Schools are to undertake first and second year College classes. We should probably consider offering short intensive courses of four weeks duration with two hours per day in each subject. Up to the present, graduates in attendance have taken our regular classes as visitors, but if we can anticipate their need and meet it by a short but effective term of refresher courses without examinations, (unless desired by the students), we may increase in a marked degree the usefulness of the school, and secure another very desirable class of summer students.

Respectfully submitted,

W. T. MacCLEMENT.

REPORT OF EXTRA-MURAL DEPARTMENT

I have the honour to submit the following report of Extra-mural work for the year ending March 31st, 1930.

Registration

The extra-mural registration for the summer of 1929 was 694; for the winter of 1929-30 it was 762. As some students were taking work in both sessions, the net registration was 1,057. Comparative figures for the past five years are as follows:

	1925–26	1926–27	1927–28	1928–29	1929–30
Summer	733	712	705	707	694
Winter	805	824	774	808	762
Net Registration	1075	1098	1040	1098	1057

The total number attending the Summer School of 1929 was 510, and of these, 60 were registered for physical culture courses only, the remaining 450 were regular students in Arts.

Occupation and Location of Students

The extra-mural courses of Queen's University were provided originally for teachers who wished to raise their academic standing. As the following figures will show, the majority of those registered are in the teaching profession.

Occupation—Winter Registration

Teaching	621	81%
Ministry	10	
Business	71	
At Home	33	
Farming	3	
Manual Labour	2	
General	22	
	762	

Location of Students

British Columbia	18
Alberta	32
Saskatchewan	116
Manitoba	7
Quebec	60
New Brunswick	13
Nova Scotia	5
United States	7
Bermuda	1
Eastern Ontario	261
Central Ontario	271
Western Ontario	177
Northern Ontario	89
	1057

Entrance Standing and Age of New Students

According to the regulations of the University, extra-mural courses are open only to those who have reached the age of 21 years, but if applicants under that age with Honour Matriculation can present evidence that they cannot attend college until later, registration is permitted, though not in the full number of courses normally allowed to extra-mural students. The entrance standing and age of new students are as follows:

Entrance Standing	Summer 1929	Winter 1929–30
Pass Matriculation	15	11
Honour Matriculation (partial or full)	78	125
Over 21, Matriculation postponed	4	11
General Students	5	2
	102	149

Ages	Summer 1929	Winter 1929–30
17	0	1
18	1	4
19	1	6
20	5	15
21–24	57	71
25–29	22	25
30–39	13	24
40–49	3	2
50–over	0	1
	102	149

Postgraduate Study

During the winter session 82 graduates were registered in extra-mural courses. As the following statement will show, the majority were seeking further academic credits.

Ph.D. Courses	2
Master of Arts	12
Bachelor of Commerce (Graduate in Arts)	2
Academic Standing for School Inspector	5
Bachelor of Arts (Graduate in Science)	1
Bachelor of Arts (Graduate in Commerce)	1
Academic standing for Specialist	7
Raising Pass B.A. to Honour	42
Bachelor of Arts (Graduate of other Univ.)	2
Refresher Courses	8
	82

Correspondence Courses in Middle and Upper School Subjects

For some time the University has been receiving requests from public school teachers for correspondence courses in Middle and Upper School subjects, and has now decided to add these courses next fall to the list of those offered through the Department of Extension. Arrangements have also been made with the Department of Education, Toronto, to offer at Queen's University this summer classes in History and Science of Middle School, and in Modern History, Science, Latin, French and German of Upper School. These courses will be conducted by instructors in Collegiate Institutes who are specialists in the subjects they teach, and will mean no additional work for the staff at Queen's.

Extension Lectures

As usual this Department received during the year a number of requests from outside clubs and organizations for extension lectures on popular subjects. In some cases a series of two or three addresses was arranged. The lectures were given by the regular staff at Queen's and the places visited included North Bay, Ottawa, Smith's Falls, Carleton Place, Cornwall, Brockville, Picton, Belleville, Trenton, Port Hope, and Kitchener. In addition, private arrangements for other addresses were made with particular professors by clubs and institutions. The Director of Extension took the advantage of visiting the Normal Schools at Ottawa, Peterboro, Toronto, Hamilton and North Bay to tell the prospective teachers about Queen's extra-mural and summer school courses.

The Committee on Extension Lectures is preparing a new program of addresses for the coming year.

In my report a year ago I referred to the organization of a study group at Belleville. This year the group was again organized and spent the winter in a study of the history of the Novel. Mr. E. C. Kyte, our Librarian, met the group monthly and reports a keen interest by those attending the classes.

The series of eight Public Lectures on Some Nineteenth Century Figures given in Convocation Hall during the winter proved very popular. Principal R. Bruce Taylor opened the series on January 13th with an Address on *Queen Victoria.* This was followed by one on *Bismarck* by Mr. H. Sutherland, *Lord Elgin* by Professor Duncan McArthur, *Darwin* by Professor Alexander Macphail, *Cecil Rhodes* by Professor Norman Rogers, *Pasteur* by Dr. L. J. Austin, *Disraeli* by Principal H. A. Kent, *Cardinal Newman* by Professor N. Micklem.

Respectfully submitted,

A. H. CARR,

Director, Department of Extension.

COURSES IN COMMERCE AND ADMINISTRATION

Work in this Department continued to expand steadily during the past session. The registration of students increased to 215. Those entering the Course for the past two years have been subject to the same regulations as those seeking Honour Degrees for Bachelor of Arts. Next year these standards will be applied to the graduating class.

Courses in Banking.

The registration in the Course in Banking has remained about the same, namely, 203 as compared with 200 for the previous year. Of these 87 were first year students and 80 had been previously registered. Thirty-two are taking the first year course in Spanish while 4 are taking the second year course, and 2 are registered in Advanced Foreign Exchange.

An arrangement has been entered into with the Canadian Bankers' Association and the School for Higher Commercial Studies, Montreal, by which that School will give instruction to French-speaking students who will write the same examinations as are prescribed for others taking the Course.

The immediate administration of this Course has been carried on by Mr. R. Owen Merriman, M.A. His co-operation and that of the Educational Committee of the Canadian Bankers' Association is gratefully acknowledged.

Courses in Accounting.

The marked increase which has characterized the last few years in the instruction courses conducted by Queen's University for the Institute of Chartered Accountants has continued. As compared with 370 students last year there were this year 310 and, in addition, some 116 students were carried over from previous registration. This increased registration has put a heavy burden on our Accounting Staff, but it is indicative of substantial increase in the profession in spite of higher standards and a longer period in which students must be articled.

During the past session almost the whole instruction course in Accounting has been revised and republished. Almost the whole of this work has fallen on Professors Smails and Walker who share jointly the active work of this Course. The rewriting of the instruction course is equivalent to the publication of a series of text-books totaling upwards of 3,000 pages; all this has been accomplished in addition to the regular work of instruction. In this as in other phases of work the success attained has been entirely due to the efforts of Professors Smails and Walker.

The Director and Staff desire to express their appreciation of the co-operation of the Board of Instruction of the Institute of Chartered Accountants of Ontario and of the selected Committee appointed to co-operate in the revision of the Course.

Respectfully submitted,

W. A. MACKINTOSH.

REPORT OF THE LIBRARIAN, APRIL, 1930

I have the honour to submit a report upon the work of the library for the year 1929-1930.

Stock.

In May, 1929, the library in all departments was closed for the purpose of stock-taking. Inclusive of 1,240 bound volumes of newspapers, our total stock at that date was 126,500 volumes. This is a number considerably less than the estimates previously made and in many cases published. It had been stated in print that our total was over 175,000 volumes. As a result of a very careful enumeration we are now able to give the above basic figures.

Accessions.

The number of volumes added to the library during the year was 2,234, and the number of pamphlets, government documents, etc., 1,081. We received also 529 volumes in gifts. Our total stock at the end of March 1930 is therefore 130,344 volumes and pamphlets.

Circulation.

A considerable decrease in the number of works of fiction issued has to be recorded. At the same time there has been an increase to the extent of over 2,000 volumes in the amount of serious reading. The circulation, including week end loans, was 15,378. In February of 1930 we issued the record number of 2,366 volumes.

Our circulation department records 169 borrowers from the Staff and 1,304 Students.

Reading Room.

The issue of books from the Reading Room has increased by nearly 600 volumes, 34,608 volumes were borrowed during the term and an additional 1,056 magazines. At certain times the accommodation has been insufficient for the number of students desiring seats, and throughout the year the room has been well filled and the number of works of reference consulted (of which no record is taken) has been very large.

Extra-mural.

Our extra-mural work shows considerable increase. The number of volumes sent out was 495 as against 344 in 1928-29. These books have been sent to every province in Canada and have been of the greatest assistance to students who in many cases were cut off from ordinary possibilities of borrowing.

Medical Library.

Number of volumes purchased during the year 140, presented 35, obtained through medical exchange 58. Again a very large use has been made of the collection. The plan of sending out lists to the hospital and monthly notes of additions, to medical men in Kingston, has brought us greatly increased use for both books and periodicals. Of the latter we now subscribe for 120, wholly devoted to medicine.

Staff.

Several changes in the personnel of the staff have taken place. Miss Jones resigned in June and her place in the order office was taken by Miss Eleanor Tett. Miss Betty Murray left us in November and Miss Helen Ireland was appointed to assist the circulation department. Miss Moffat accepted a New York appointment in January and her place has not yet been filled. Three student assistants have been doing part time work. All three expect to take up librarianship as a career and are making excellent progress.

The work of the staff as a whole has been most praiseworthy. During May 1929 when the library was closed for stock-taking, opportunity was taken to re-arrange the books. Over 1,200 bound volumes and newspapers were placed in the basement and the general stock was then re-distributed. This entailed moving over 80,000 volumes and the manual labour involved was very great. The staff, however, carried it through most ably and cheerfully and the relief from past overcrowding is an abiding testimony to the manner in which the work was done.

Gifts.

Thanks have been sent to all those who have presented books; but opportunity may be taken here to speak of the very valuable donations from Mr. William Harty (174 volumes), Dr. Lorne Pierce, Principal R. Bruce Taylor and Dr. James Miller. The library has indeed been fortunate in the quality and usefulness of the volumes thus added to our stock.

Apart from books, it is necessary also to record the splendid donations of the Constantine collection and the Shortt-Haydon Collection.

Constantine Collection.

In September we were informed by Mrs. Etherington, that Mrs. Constantine had presented her with a splendid collection of Eskimo and Indian weapons, basket work, ivories, etc., for the University. Cases, the expense of which was generously defrayed by Mrs. Etherington, were immediately made to contain the collection, which is to form the nucleus of the George Taylor Richardson Bequest, and at a very pleasant little ceremony on Wednesday, November 27th, it was formally handed over to the library. We hope that Mrs. Constantine may be induced to lecture in the fall and so maintain the great interest that has been generally shown.

Shortt-Haydon Collection.

We have to record an addition of 650 new prints to the Shortt-Haydon Collection of scenes and portraits relating to Canada. The gift was made by Dr. Shortt and the expense of framing was undertaken by Senator Haydon. The collection has been arranged in chronological order and, together with the pictures presented by Sir Gilbert Parker, now forms one of the finest collections in Canada.

Lectures.

In October a systematic attempt was made to expound to Freshmen the work of the library and, particularly, the method of making and using the catalogue. Lectures were given by the Librarian and the Head Cataloguer; the series lasted until the end of January and was certainly productive of good. An increased confidence in the use of the catalogue was very noticeable. The Librarian has also given a course of University Extension lectures at Belleville on the History of the Novel.

General.

Great progress has been made during the year with the task of cataloguing arrears; only one important class, that of Government Documents, remains, and this has now been taken in hand. During the summer the Art Collection was listed and the list will be published. We are also preparing sectional catalogues or hand-lists for the principal classes and it is hoped to issue the first (Canadian) within the next twelve months. A circular letter sent out to graduates revealed that many were anxious to obtain such lists and the project has received a very gratifying amount of support.

Respectfully submitted,

E. C. KYTE,

Librarian.

REPORT OF THE COMMITTEE ON SCIENTIFIC RESEARCH

I have the honour to present herewith the twelfth annual report of the committee on scientific research. The record of achievement for the year is of necessity, in form and tone, much like those of previous years. The reports of the various professors engaging in research vary greatly however from year to year and the list of men doing such important work increases slowly. It is gratifying to the committee to find more men who are willing to give up a part of the summer for this work, and who, in most instances, find time in the midst of a busy teaching session to do a little original work. The committee just now at the opening of a new financial year finds itself embarrassed with the demands made on its slender funds. But this is also encouraging and is as it should be.

The student assistants are still a very important feature of our work. These men for a small stipend give up almost all the summer to the work of the members of the staff which enables the senior men to accomplish very much more than they could hope to by themselves. The students also are benefited by the contact with research in progress.

The following excerpts from the reports of various professors give a comprehensive survey of the work of the year. While the language is in some cases highly technical the record is impressive even to the uninitiated.

Professor W. C. Baker reports:

"During the summer months of 1929 I continued my study of the change, with time, of the angle of contact of mercury with solids. I obtained fairly reproducible curves showing an alteration extending over several days. I found also sudden changes following shock or vibration. After taking the apparatus down for the winter session I found a paper in a then recent number of the Physical Review (August 1929) in which the same phenomena were described even in the highest vacua. This work was by S. S. Cook of the Washington University at St. Louis. His results confirm all my findings and show that my mode of attack cannot yield more than has been already published. The next step is still uncertain."

Professor Earl writes as follows:

"The research upon which I have been engaged since March 31, 1929, is a continued study of the cytology and genetics of the genus Nigella. The species previously reported were grown again in the garden and efforts were made once more to obtain species crosses under better conditions. These again were unsuccessful. Cytological preparations were made from these plants and we now have much better material on the chromosomes of this genus than has been published anywhere.

"X-ray work was also continued and I have growing in the greenhouse some abnormal progeny of X-rayed plants that appear likely to provide useful cytological material.

"Our most important finding was a plant with twice the normal number of chromosomes. It had a most unusual behaviour in pollen formation and has been quite fully studied. It forms the subject of a paper which will be published shortly.

"Work has begun on two woody plants of the pea family. Chromosome studies and attempts at crossing will be made to see if the hardiness of the Siberian pea shrub and the height of the Honey Locust may be combined."

Dr. Bruce says:

"During the past winter I have been making a study of gneissic rocks from some areas examined during the summer.

These areas are shown as being underlaid by granite on present geological maps. I hope to have the results of the examination ready for publication this spring.

"Experiments set up two years ago for the study of the effect, if any, of radioactive minerals on precipitation of gold from silica gels are still under way but as time may be an important element, the specimens will be left undisturbed until next fall."

Professor Klugh gives the following report:

"The research work which I have carried on during the past year falls under three headings, as follows:

1. *Determination of the Ultraviolet Component of Solar Radiation.*

"This problem, which is of importance not only because of the effect of the ultraviolet of the sun's radiation on marine animals but also from the standpoint of heliotherapy, was successfully attacked last summer by the use of a Moll-Richard-Gorszynski pyrheliometer, a combination of two new Corning light filters, and a sensitive suspension-type galvanometer, the two former being provided by the National Research Council and the latter by Queen's Research Committee. On a clear August day, when the total direct solar radiation at Lat. 45 N. and sea-level had a value of 1.26 grm.cal.cm^2 per minute, the ultra-violet component was 2.03%. When cirrus and very light cumulus clouds are over the sun the ultraviolet component is relatively higher, as the short wave-length radiation is not reduced as much by passage through water-vapour as the red and infra-red which constitute the larger portion of the sun's spectrum.

2. *Studies on the Photosynthesis of Marine Algae.*

"The photosynthetic relationships of marine plants constitute one of the fundamental problems of marine biology and during the past summer I began a series of investigations on this subject. The first part of this work consisted of experiments to determine the upper and lower limits of light intensity which were effective for photosynthesis in a typical green alga, *Enteromorpha linza,* which were found to be 5.8% and 0.011% respectively of full sunlight with a value of 1.36 grm.cal.cm^2 min^1. The second part of this work was an investigation into the relative effectiveness of red, green and blue light in the photosynthesis of three species of marine algae—a green alga *Enteromorpha linza,* a reddish-brown alga *Porphyra umbilicalis* which grows in comparatively shallow water, and a magneta-red alga *Delesseria sinuosa* which grows at much greater depths (i.e., from 15 to 30 metres). The photosynthetic rates of these three species in the different regions of the spectrum were found to be very different, those of *E. linza* being red = 1.80, green = 0.16 and blue = 1.16, of *P. umbilicalis* red = 2.46, green and blue = 1.65, and of *D. sinuosa* red = 1.35, green = 1.25, and blue = 1.05. The chief interest in these experiments lies in the fact that the data obtained on the photosynthetic rates of these three species fit in very well with the transmission coefficients which I had previously determined for the waters of the Bay of Fundy at the place where the experiments were carried on, as green light penetrates best, blue next, and red least.

3. *The Effect of the Ultraviolet Component of Solar Radiation on some Aquatic Organisms.*

"This is a continuation of the research carried on during 1927 and 1928. During the past year the experimental animals were young Fels, the Amphipod *Gammarus locusta,* and the developing embryos of the Squid, *Loligo pealii.* The results obtained confirmed those of the two previous years."

Professor Ettinger reports as follows:

"The research problems upon which I have been engaged during the past year are those which I commenced during the year I spent in Edinburgh:

(a) "An investigation into the pulmonary circulation of the guinea pig. This is a problem which must be spread over a year because of the apparent seasonal variation in the response to stimulation by adrenaline.

(b) "The seasonal effect of adrenaline upon the pulmonary artery of the rabbit.

(c) "The action of Janus Green upon the blood-vessels of the guinea pig, rabbit, cat and frog.

"The first problem will be finished by June 1st, the other two will be carried on during the summer months."

Professor McRae gives the following brief statement:

"During the current session I have been engaged with Mr. M. C. McNab, B.A., on 'A Study of the Action of Alkaline Sodium Hypobromite on Some Diarylsuccinamides', and in collaboration with Mr. A. L. Kuehner, M.A., of Bishop's University, experiments begun several years ago on 'The Condensation of Benzoin with Ethyl Cyanoacetate' have been completed."

Professor Carson writes:

"The progress made to date is as follows:

"A high temperature X-ray Cassette has been designed and constructed which will enable X-ray (powder) diffraction patterns to be secured at temperatures up to 700°C. The instrument is being used to obtain the diffraction patterns of gamma bronze. This phase cannot be retained at room temperature by quenching and therefore X-ray data can be obtained only above 600°C.

"If possible the variation of the parameter with the composition will be determined in an effort to ascertain the compound which forms the basis of this solid solution."

Professor Gray says:

"In last year's report, it was mentioned that Miss McDonald had observed a new effect in connection with the scattering of X-rays by graphite. This was a marked scattering at small angles, the scattering increasing as the angle was decreased. This result has been verified by Mr. W. H. Zinn and myself using a similar experimental arrangement but one of greater resolving power. This has led us to examine different kinds of carbon, particularly the charcoals, and interesting results have been obtained. One specimen of charcoal has been found to scatter the X-rays in much the same way that charged particles are scattered. It is necessary to carry out further experiments before we can give the correct interpretation of this, but as one of the most fundamental results of physical research in recent years has been the demonstration that charged particles behave in some respects like waves, it seems possible that we have here the converse effect.

"In our interpretation of this and other results we have been greatly helped by the work of Mr. Zinn on the scattering of X-rays by aqueous solutions. He has used primary beams of different wave-lengths and has shown that the distribution from zero angle to that where the intensity is a maximum, can be calculated for any wave-length, provided it is known for one wave-length. An approximate explanation has been obtained of the results and the possibility of measuring the molecular weight of solvents is being investigated.

"With the help of Mr. J. D. Stewart, measurements have been made of the relative ionization produced in different vessels by primary β-rays, to see if an independent method could be obtained of estimating the average energy of the secondary β-rays produced by γ-rays. In this, we have been successful and have confirmed previous estimates of γ-ray wave-lengths such as those of Gray and Cave. We also consider that we have definite proof of a new type of γ-ray absorption, one in which two or more β-rays are ejected in a single process.

"For many years, we have carried out experiments with β and γ-rays. In this way a good deal of knowledge has been obtained of the properties of electrons of high energy and waves of very high frequency, but the knowledge is not exact enough and can never be so. Further, the intensities of the primary radiations are too small, so that many possible effects are unobservable. A great deal of light will be thrown on the properties of matter when experimenters are able to work with cathode rays and positive particles of energies corresponding to several millions of volts.

"I must again express my great indebtedness to Dean Etherington for the loan of radium. I have also to thank Drs. McRae and Frost for help in connection with the experiments on the scattering of X-rays by charcoal."

Professor James Miller writes:

"During last summer I was engaged in an enquiry into the occurrence of Amyloid substance in enlargements of the thyroid gland. I am reading a communication on this subject at the coming meeting of the British Medical Association. Dr. Ettinger and I published a more extended study of a series of Anencephalic foetuses in the Journal of Obstetrics and Gynaecology of the B. E., Vol. 36, No. 3, 1929. At the meeting of the Ontario Medical Officers of Health I read a paper upon the relative frequency of Tuberculosis of Bovine Origin in Europe and America, a subject which I have been interested in for many years."

Professor Arkley's report is as follows:

"In 1927 the old boiler room was renovated so that it might be used as a research laboratory.

"In 1928 the National Research Council voted the writer $500.00 to be used for developing a hot plate for use in finding coefficients of conductivity of building materials. The Council also authorized the engaging of an assistant to work on the construction of the plate.

"The plate was built and tried out in 1928-29. As in all work of this kind many changes and improvements had to be made before satisfactory results were obtained. One difficulty that we experienced was in getting a satisfactory low temperature on the cold plates, until last summer when the National Research Council financed the installation of a refrigerating machine. This machine works very satisfactorily and we can now keep a uniform temperature on the cold plates almost indefinitely.

"The whole apparatus seems to be in excellent shape now and we have made many determinations of the coefficients for which the plate was designed.

"The most important piece of work done so far was the finding of coefficients of conductivity of some 15 materials used as insulators in walls of buildings. This work was undertaken by the National Research Council at the request of the Tariff Board to enable the Board to fix the proper tariff on insulating materials coming into Canada from the States. This work was duplicated at McGill University and at the University of Toronto, and many of the results check quite closely. I feel that it was a good thing to be able to carry on these tests here. My demonstrator, H. M. McIlroy, did excellent work in connection with building the apparatus and the operation of it, and used the data obtained in writing his thesis for the degree of Master of Science."

Professor Robertson reports on his work as follows:

1. "Studies in the Electrodeless Discharge:

(a) "Mr. K. A. MacKinnon, M.Sc., continued the work begun at the beginning of the autumn of 1928 until July 1929, when a paper on the origin of the electrodeless discharge was sent to the Philosophical Magazine where it was published in November 1929. His main conclusion was in agreement with that indicated in my report a year ago.

(b) "In the course of his investigations, Mr. MacKinnon discovered an apparently new type of high frequency striation. While time was not available for an exhaustive study of this phenomenon, a few observations were made and a preliminary report was given in Nature, July 13, 1929. It may be possible to continue this work during the coming summer.

(c) "During the early autumn of 1929 some preliminary work was done by the writer on a further examination of the continuous spectrum of metallic vapours when excited to luminosity by high frequency discharge. Valve tubes now make it possible to use 'undamped' oscillations, in addition to the 'damped' oscillations used in earlier work, and it is planned to use both methods of excitation. Because of a full teaching program the work could not be carried out during the present session, but it is hoped that it will be possible to do so with the aid of a student assistant when classes are over."

Professor Jemmett reports that he has been developing two special meters. One is a polyphase K.V.A. meter which is nearly ready. The other is a single phase K.V.A. meter which is now in progress. Both of these instruments should prove to be valuable accessories to the laboratory and in commercial installations.

Dr. Reed's report is given as follows:

"For the last three years we have been studying the dissociation of tubercle bacilli into strains of different degrees of virulence. During the year we have perfected a method by means of which apparently any culture of tubercle bacilli may be separated into virulent and avirulent types. During the next few weeks the first of a series of papers on the subject will be published. As a biproduct of this work a second paper was published during the year on the relation of iron to the metabolism of tubercle bacilli.

"Work on the production of anaemia by B. Welchii and its toxins has been continued in collaboration with Dr. Orr. A new method of preparing the toxins of these bacteria has been developed which will apparently permit us to fill certain important gaps in our previous thesis. During the year a paper has been published on the *in vitro* action of these toxins on red blood cells.

"In co-operation with Mr. Gibbons another paper has been added, to the two previously published, on the influence of autolysis of tissues on subsequent bacterial decomposition.

"A study of the preservation of red blood cells and their uses in complement fixation reactions, which has been in progress for ten years, has been completed and the results published."

Needs.

The building programme now contemplated, comprising the addition to Nicol Hall (now under construction), the utilization of the old "gym" for hydraulics and the machine shop, and the erection of a fine building for Geology and Mineralogy will provide the space so badly needed for research in several departments. It is to be expected that when this additional room becomes available considerably more work will be undertaken. The greatest need that we have experienced in recent years will thus be met in the near future.

Glass-blower. From time to time the need of a trained glass-worker has been emphasized. This kind of assistance would be of inestimable value to the research workers of Queen's and should be provided as soon as possible.

Fellowships. Last year the need for a few fellowships for recent graduates who desire to carry their work to the Master's degree was brought to the attention of the Trustees. Particularly in Geology and Physics where the departments are organized to do graduate work such fellowships would be most useful. To keep one good man for the additional year of study might prove to be the very best kind of an investment of university funds. Queen's suffers by having so few awards of this kind and students who might remain one more year go elsewhere, while students from other universities rarely come here because there are almost no fellowships open to them. Queen's is lagging in this respect.

The year has been one of productiveness and the outlook is encouraging. In looking back over the twelve years in which the committee has been operating the great stride that Queen's has taken in scientific research is evident. An increasing volume of published work is coming and more men are becoming interested. More important than these, however, is the building up of a scientific atmosphere in several departments and the awakening and training of an increasing number of young workers.

Mr. Bradfield, our instrument maker, has again earned for himself the commendation of all who come in contact with his work. He is a most useful man.

Respectfully submitted,

A. L. CLARK.

PHYSICAL TRAINING REPORT

The athletic activities of the University are now over with the start of spring examinations, and I am herewith giving a short account of the various phases of the work conducted during the year. The opening of college in the fall is a signal for action and everyone interested in athletics starts to train for his particular event.

The rugby aspirants were early on the job and had put in nearly two weeks of vigorous work before the large majority of students arrived. It was a great pleasure to have charge of the preparatory work and to more or less continue throughout the rugby season, and it is always gratifying when our team wins the Intercollegiate Championship, as was done this year. The most noticeable feature of the past season in regard to this team was the fine spirit of unselfishness and co-operation which developed early in general practices, and continued throughout every game. It is a real tribute to the ability of our Coach that not the slightest friction or jealousy developed throughout the season, and this fact, as much as any other, was accountable for a most successful season.

Our Track athletes participated in the annual meet in Toronto but were successful only in winning two second and three third places.

The inability of our men to take part in the various competitions during the summer, and the fact that many are in inaccessible places where they have no possible opportunity to train, makes the situation more difficult in the fall when they report for work. We intend to enter a team in the Intermediate section of the Track Union where competition is just as keen, but where the records are slightly lower, and consequently all will have a chance. Toronto, McGill, R.M.C.

and Queen's will make a very fine Intermediate section and we will look forward to being more successful in this than in the Senior group.

Our Harriers participated in the annual Harrier race in Montreal, but were unable to hold the pace set by several of the veterans of this game. Barring accidents it was possible to name the winners before the race and the long-legged men again proved much superior, especially in the muddy stretches, to all those of lesser stature.

Gymnasium classes started as soon as medical examinations were completed. The attendance has been very good, but quite a number failed to make the required attendance and will have to repeat. A large number of students other than freshmen came to the classes this session and are always welcome. We had an unusually large class in first year Science, and it was not uncommon to have 70 men on the floor at once. This is about the limit for our floor space, and much too large a number for the shower bath accommodation existing in the gymnasium at present. As each hour brings its quota the congestion is very bad, but we are hoping, with the building of the new gymnasium, to remedy these defects.

Our Boxing, Wrestling and Fencing team had a successful season as far as training is concerned and much new material was developed. We managed to take four boxing and two wrestling events, but both Queen's and Toronto were beaten by the fencers from McGill, who won the Championship. A movement is now on foot to make the Fencing championship a separate event, and the three Universities were unanimous that this would be in the best interests of the Boxing and Wrestling championships. The sabre will be added to fencing with foils and this will make for increased interest in this sport.

Our Basketball team concluded one of the best seasons we have ever had by winning the Intercollegiate Championship in a closely contested game with Toronto University, and going through the entire season of exhibition games, as well as the regular schedule of Intercollegiate games, without a defeat. We also had in this team a fine example of unselfishness and team co-operation. It was particularly pleasing to have the Captain, Herb Dickey, and Sutton, both of whom are graduating this year, as players on both Rugby and Basketball championship teams.

Our Junior team, in the Eastern Ontario Basketball League, won the honors in this section, whilst our Intermediate team lost in their section. Win or lose, this league provides opportunity for developing players for our Senior team, and also gives those who love this game a chance to indulge in their favorite sport.

I am looking forward to the splendid facilities which will be afforded by the new gymnasium to carry on more effectively the purely remedial work needed by certain students before attempting regular gymnastic classes. These cases demand personal care and special apparatus and space where the work can be done without interruption, and all of this will be provided in the new building.

The gymnasium has been of great value to those members of the staff who play Badminton three times a week. The demand for hours in the various groups of athletics engaged in by our students makes it extremely doubtful if as much time can be given to Badminton as has been in the past, but some solution to this will be provided when we know the requirements of all concerned.

JAMES G. BEWS.

REPORT OF WOMEN'S BRANCH OF PHYSICAL EDUCATION, SESSION 1929-30

I have the honour to submit the report of the Physical Education Department for Women Students.

The physical examination of students this year was very unsatisfactory, and it is to be hoped that more time and attention to this very important side of the work will be given next autumn.

Soft-ball and Hockey were played in the Fall and the Interyear games played off before the weather became too bad. The Freshettes gave their Seniors much opposition this year, and won the coveted position of victors in the Basketball series played after Christmas.

Classes in the gymnasium were held alongside these other activities, only four students failing to complete the necessary 80% attendance.

Practice games in Basketball were played with the K.C.I., Napanee Collegiate Institute and the Montreal Y.W.C.A.

The Intercollegiate Meet was held in London on the 21st and 22nd February with four teams competing. Toronto University had the winning team with McGill second, Western third, and Queen's fourth.

Ice Hockey again attracted a large number of enthusiasts, and we were very fortunate in securing the services of Mr. Murphy as coach. Four games were played, one with the Alerts from Ottawa resulting in a tie, one with McGill who defeated us 3-2, and two with the University of Toronto, who defeated us by 5-1 in Toronto and tied with us at Queen's.

A number of girls took part in swimming, and two are trying for the Bronze Medallion.

Much credit is due the Ladies' Athletic Board of Control which has worked faithfully and loyally.

Respectfully submitted,

ETHELWYNNE MURPHY,
Physical Directress.

REPORT OF THE MEDICAL ADVISER

I beg to submit the following report for the session 1929-1930.

During the month of October all students, attending the University for the first time, were given a physical examination, over 95% being placed in Grade I. A number were given corrective exercises for various deformitories under the guidance of the Physical Director at the Gymnasium.

While no real epidemic occurred during the session, a large number of students were admitted to hospital with bronchitis and influenza. The more serious medical ailments included two cases of pneumonia, and one of diabetes. Operations were done for the relief of appendicitis, gall-stones, duodenal ulcer, and strangulated hernia, as well as a number of minor cases.

There were fewer cases of infectious diseases than usual —scarlet fever, 2; mumps, 3; chicken pox, 2—out of a total admission of 233.

Mention should be made of the five or six cases which were in hospital over an extended period. Of these, three were tubercular. From the outset it was obvious that these patients would not be able to finish their year; also that their condition existed before they came into the University. The question arises whether or not there should be a limited time during which a student should be taken care of by the University under the Health Insurance Plan. This is a matter which might be taken up before the next session.

Respectfully submitted,

H. S. ANGROVE, M.D.

REPORT OF THE ALMA MATER SOCIETY 1929-30

I beg to submit the following annual report of the Alma Mater Society for the session of 1929-30.

The elections were conducted, as in the previous year, under the Faculty party system. The two parties again had similar planks for their platforms. These were:

1. To make the Queen's Crest available for the use by graduates and undergraduates.

2. To enforce freshmen regulations made by the previous executive.

3. To revive the Frolic.

4. To revive the old student parade.

5. To give the Freshmen's Reception a more attractive form than formerly, and to take it over as a regular A. M. S. function.

6. To carry on student government on the high plane on which it was left by the preceding executive.

It will be realized to perform the above tasks the executive had to work in the utmost harmony and they were fortunate in having four of the best faculty presidents in years in Miss Mary White of Levana, Mr. M. MacFarland of Medicine, Mr. T. H. Neville of Arts and Mr. H. P. Dickey of Science. The remainder of the executive were of high calibre and we are pleased to report that the above tasks and many others were carried out.

The executive worked with the Athletic Board of Control and the student body to further the new Gymnasium. The students at a mass meeting agreed to raise the athletic fee by the sum of three dollars to guarantee for the Athletic Board of Control stable income.

The executive, with the help of the Athletic Board of Control, has placed the College Crest at the disposal of all bona fide graduates and undergraduates. To do this it was necessary to ask the Board of Governors of the C.I.A.U. to submit and adopt an Intercollegiate athletic award for all Intercollegiate championships, thus replacing the former Queen's athletic award.

The freshmen regulations as laid down in the revised Constitution 1928-29 were enforced rigorously by the Faculty and Alma Mater Courts. They were favorably received by years except the freshmen and we learned, upon enquiry at the end of the 1930 session, that the freshmen are strongly in favor of their enforcement in the coming year.

The executive attempted the difficult task of reviving the College Frolic. It will be recalled that the unfortunate incident of two years back occurred as a result of this function and the Senate and the Alma Mater Executive co-operated in an effort to place it on a higher standard than previously. It was agreed that there would be no dance after the Frolic, and a special appeal was made to the student body to live up to that agreement and to retain a high degree of order during the performances. The show was directed by Miss Sadie Nissen, and ran for two nights. The first night was reserved for citizens of Kingston, and the second for students.

The executive, to promote college spirit, and, at the same time, to restore a function which was once a popular college feature, attempted to re-establish the student parade. This parade was held during the fall semester under the leadership of Mr. Gib. McKelvey and proved an unqualified success. It was adopted in the Constitution and will become an annual function. All faculties contributed floats, banners, etc. and, after touring the principal streets of the city, a huge bonfire and fireworks on the lower campus ended the parade.

The executive attempted to make the Freshmen's Reception more attractive. Various items were added to the program, the chief of these being dancing which, it was felt, achieved the desired result. The Social Functions Committee, consisting of the Principal, Registrar and the Deans of all Faculties and the President of the A.M.S., ratified the revised program and the Freshmen's Reception is now under the direct control of the A.M.S. executive.

Another achievement of lasting significance was the inauguration of an A.M.S. dance which is expected to become a permanent fixture of the social season. Added to this there were other less concrete, but nevertheless real accomplishments which included the combined meetings of the Council and Executive, the good order secured at the Autumn Convocation and the prevention of the Freshmen-Sophomore battle. The executive wish to thank the Principal, Registrar and members of Faculty for the splendid support and hearty co-operation accorded at all times. The executive this year appealed directly to the students and, whenever possible, attempted to ascertain their opinion. The Faculty made this possible.

The permanent secretary, Lt. Col. K. L. Stevenson, added the continuity necessary and it is felt that in the coming year he will be a greater aid to the executive than formerly, and through his efforts the financial end will be under more direct control. Due to the heavy program the executive is not in as strong a position financially as in the preceding session, but they have succeeded in satisfying creditors.

Respectfully submitted,

J. C. BRITTON,
President, A.M.S.

ATHLETICS AT QUEEN'S

During the season 1929-30 Queen's won the Intercollegiate championships in Senior Rugby and Senior Basketball, whilst a very close second was scored in the Assault-at-arms. Intercollegiate Hockey was not participated in. The final results of the six major sports in the Intercollegiate Union were as follows:

McGill, 3	Tennis, Hockey, B. W. & F.
Queen's, 2	Rugby, Basketball
Toronto, 1	Track

In winning the Senior Rugby title this season Queen's were forced into a tie by Toronto but were able to win the play-off at Kingston by a comfortable margin. Incidentally it might be mentioned that the play-off with Varsity drew the largest crowd to witness a game at the Richardson Memorial Stadium. Undoubtedly, this season's champions can be considered to be amongst the greatest of Queen's teams of the past few years. Young, a little on the light side, but very fast, the team played splendid football throughout the season and, although beaten by the older and more experienced Hamilton team in the play-downs for the Dominion title, they upheld in every way that tradition for playing the game that belongs to Queen's. The Intermediate team were eliminated by their old rivals, R.M.C., after two closely contested games. The Juniors defeated the R.M.C. second team, but were themselves eliminated by the strong Varsity Junior team.

Queen's were represented this season, in the Intercollegiate Basketball series, by one of the best teams of recent years. Flashing through the regular series and four exhibition games without a defeat, the team played at times in sensational manner and, were it at all possible, there is no doubt that this year's Intercollegiate champions would go well towards the finish in the Dominion championship competitions. The Intermediate team, as has been usual for the past few seasons, again won the local group title of the O.B.A. series. The lateness of the season always prevents this team from participating in more than the local group schedule. The Junior team played in the Junior section of the O.B.A. and were also successful in carrying through an interesting schedule.

Special mention must be made in this report of the activities of the Boxing, Wrestling & Fencing Club. The progress made in this branch of sport during the past few years was continued this season. Three very successful exhibition assaults were held in which Queen's were the victors on each occasion, such strong teams as Toronto Argonauts, Camp Borden and Belleville Legion providing competition of the very finest and most sportsmanlike kind. In the Intercollegiate Assault held at McGill this season Queen's actually won the points in Boxing and Wrestling, but were reduced to second place owing to scoring no points in Fencing. It is interesting to note that the Intercollegiate Boxing, Wrestling and Fencing Union propose to drop Fencing from future assaults and Fencing will become part of a separate sport along with Sabre Fighting and Gymnastics.

Track and Tennis this past season continued to be dominated by the stars from McGill and Varsity. Competition in these two sports was keen and Queen's were very ably represented although unable to appear as winners.

Queen's had no team in the Intercollegiate Hockey series but were represented in the Senior series of the Ontario Hockey Association and grouped with Varsity and Nationals of Toronto. All the games in this schedule were extremely close and interesting and although Queen's finished last they were able to defeat both their opponent teams once during the season. Perhaps the surprise of the whole season was supplied by the Queen's second team playing in the O.H.A. Senior B series. After winning the local group comprised of Belleville and Oshawa this team went forward and met the powerful Hamilton Tigers in a home and home series. The first game was played in Kingston, and Queen's were the winners by a score of 2-1. The second game in Hamilton resulted in Hamilton winning 1-0, thus tying the round. The third game played in Oshawa resulted in Hamilton winning 5-3. It might be mentioned that after taking three games to defeat the Queen's second team, Hamilton beat the Varsity Senior team in two straight games.

The Junior team playing in the local group of the O.H.A. series was defeated by the fast Kingston Junior team after a good series of games had been played.

Increased participation and interest in athletics is to be noticed amongst lady students at Queen's. Levana is now well represented by its teams playing Basketball and Hockey in regular series, whilst Ground Hockey and Tennis are played by large numbers of the members of Levana.

Before closing next season's activities it is hoped that the proposed New Gymnasium will have been erected. The Athletic Board is particularly proud of the fact that the plans as approved provide for a truly beautiful building as well as one of the finest of its kind from a utilitarian standpoint.

CHAS. HICKS,
Acting Secretary,
Athletic Board of Control.

REPORT ON THE C. O. T. C.

The past Drill Season was on the whole very satisfactory, particularly as regeards numbers; in 1928-1929, the total strength was 97; this year it was 220 with six Officers attached from other units for instruction.

This increase was in a large measure due to the formation of a Medical Company under Lt.-Col. L. J. Austin to whom the utmost credit is due for the enthusiasm of the students of the Medical Faculty; most of these students tried this Spring for the "A" Medical Certificate, qualifying for the rank of Lieutenant in the Canadian Army Medical Corps. Next year it is hoped to have an Engineer Company formed, which will train for the Engineer Certificate.

Another step forward was taken this year by the formation of a Regimental Band composed of the majority of the Queen's Band, whose activities had so far been chiefly confined to playing at the football matches. In a few years this band should be in a high state of efficiency.

The results of the examinations for Infantry Certificates appeared too late for inclusion in my report for last year; I am informed that they compare most creditably with those of any other University in Canada. Most of the credit for this is due to Col. A. Macphail, who, as Honorary Lieutenant-Colonel of the Regiment, continues to show the same intense interest that characterised his command for so many years; he was in entire charge of the training for "A" Certificate. The results are as follows:—

"A" Certificate (Infantry) examined 15; passed 13.

"B" Certificate (Infantry) examined 19; passed 5.

The chief problem that remains to be solved is that of the number of parades to be attended. Under Militia regulations there should be 72 instructional parades each of not less than three-quarters of an hour; at Queen's with a possible 20 weeks for drill, it does not seem possible to hold so many, since this would mean holding nearly four parades every week, while the students' time is already pretty well taken up with their work and various activities, athletic and social.

Respectfully submitted,

P. G. C. CAMPBELL, Lt.-Col.

REPORT OF THE GENERAL ALUMNI ASSOCIATION FOR THE YEAR ENDING MARCH 31, 1930

I beg to submit on behalf of the Board of Directors of the General Alumni Association the following report upon the activities of the Association during the University year now ending.

Queen's has at the time of writing 6,404 living graduates, and it is expected that about 325 to 350 new names will be added to the list following the convocations of May and October. It was with the aim of keeping these many and widely scattered graduates, as well as a large number of non-graduates, in close touch with their *alma mater* and with one another, and at the same time of keeping the University and its activities continually before these alumni that the General Alumni Association was formed. This, together with the ultimate purpose lying behind all alumni work—assistance to the university through organization of the individual goodwill of its alumni and friends—is constantly in the minds of those directing the efforts of the Queen's Alumni Association.

Though the possibilities for service which confront an alumni association are almost innumerable and vary widely, there are certain particular fields in which graduate effort has been concentrated. The chief activities and the general work of our alumni association during the past year, with facts pertinent thereto, are detailed below.

The Queen's Review.

The *Review*, our alumni periodical, has been published nine times during the past year, omitting the months of June, July and September. The *Review* is strictly an alumni newspaper, conflicting with no other publication, and it has continued to make itself essential to the graduates and friends of the University, as well as serving as an organ of publicity for the University itself. Many letters from alumni all over the world indicate that the magazine is very welcome to them and confirm us in maintaining its present general policy. The net deficit on the publication of the *Review* for the Association year ending September 30 last was $362.53, and it is thought that the interest and general publicity resulting have more than repaid this small net cost. The magazine is still being sent to the whole graduate body, the Directors believing that the extra expense of carrying this policy for the time being was well warranted by the interest and contact thus maintained.

Files and Records.

Each year find the Alumni files approaching closer to completeness and accuracy. Over 1,800 changes of address have been recorded during the past year, and the number of alumni records on file has increased by over 25 per cent. The records (excepting alumni employment data, which are confidential) and the address stencils of the Alumni Office are now officially used by the University administration; and specific up-to-date address lists have been provided to our branches, to the University organizations, to class secretaries, and whenever possible to individual alumni requesting them. Requests that appeared to be purely for commercial purposes, however, have been refused.

The lack of a chronological file has been felt for some time, particularly in connection with class reunions and other matters where the names of specific groups of graduates are required. The great amount of labour necessary to determine such groups without a file of this sort argues for its early establishment, and it is hoped that its preparation can be got under way during the coming summer. In such a file the name of the alumnus will be included in the year in which he graduated or in the class with which he prefers to be listed. The importance of an index of this sort need not be further elaborated.

Association Membership.

On September 30, 1929, the paid-up membership of the Association was 1,078, an increase of 56 per cent. over the previous year, which in its turn had shown an increase of 52 per cent. over its predecessor. Present figures indicate further growth this year.

Branch Associations.

Branch activity during the past year has seen further development. The number of affiliated branches has increased, and numerous gatherings have been held, not only at the branches formally affiliated, but elsewhere in the many centres in Canada and the United States where numbers of Queen's alumni are living. Close co-operation with Headquarters has led to active membership campaigns, which in turn developed local enthusiasm with frequent and enjoyable gatherings. The policy of the Association to assist the local groups in every way possible is doing a great deal to stimulate branch activity.

Reunions.

The annual reunion took place last year at the time of the Fall Convocation and the Varsity football game. The Association concentrated its efforts on the bringing back of the "9" classes, the class of '04 (twenty-five years out) and the class of '24 (five years out). Seven classes held formal reunions, and two or three others held informal gatherings, with the class of '89 heading the list and occupying a place of honour on the platform at Convocation. The reunion of this fall is planned again for the week-end of the Varsity game, October 24 and 26, and it is expected that the "Zero" years will be returning as well as the classes of '05 and '25.

Meetings.

Besides the meetings of the Board of Directors during the past year, the annual meeting of the Association was held on October 12. Following the formal business, the meeting was addressed by J. W. Dafoe, LL.D., F.R.S.C., editor of the *Manitoba Free Press.* Dr. Dafoe's address was one of outstanding interest. It was subsequently published in the *Review* and copied into several influential newspapers. It is the policy of the Association to have at each annual meeting an address by some distinguished Canadian.

Officers and Board of Directors.

The Officers and Board of Directors of the Association holding office at present are as follows: President, J. Mackintosh Bell, Ottawa; Past Presidents, R. O. Sweezey, Montreal, A. J. Meiklejohn, Kingston; First Vice-President, G. C. Bateman, Toronto; Second Vice-President, T. H. Farrell, Utica; Directors: R. W. Brock, Vancouver; W. A. Campbell, Kingston; Miss Mary Macdonnell, Kingston; G. C. Wright, Kingston; J. W. N. Bell, Haileybury; A. C. Hanley, Kingston; D. H. Laird, Winnipeg; W. A. Mackintosh, Kingston; A. A. Fleming, Quebec; T. F. Houston, Hamilton; A. A. MacKay, Montreal; G. C. Munroe, Ottawa; Miss Flora Stewart, Toronto; a member of the Faculty chosen by the Senate; Presidents of Branch Associations.

Revision of Constitution of Association.

A complete revision and simplification of the Constitution of the Association has been made. The new Constitution is much more workable than was the original one, prepared before the experience of two years of operation had been attained.

Graduate Directory.

A new graduate directory has been prepared and is now being run through the press. The University is paying the cost of printing and proof-reading; but with the exception of this the book is entirely the work of the Association. Although in the three weeks elapsing between the passing of the last proofs and the issuing of the finished book numerous changes of address will have taken place, nevertheless we believe that the list will be the most accurate directory yet published at the University.

The University Crest.

Upon the request of several graduates the Association took up the question of the crest of the University being made available for general alumni use. The matter was discussed at the annual meeting and a resolution was passed asking the Alma Mater Society to amend its constitution so as to allow the crest to be worn by all alumni. The A.M.S. approved; a special emblem has been adopted for Intercollegiate athletic champions; and in the course of the next month or two the crest of their *alma mater* will be procurable by all our graduates.

The Employment Service.

The Employment Service, though still under the jurisdiction of the Engineering Society, has for the past year and a half been administered by the Alumni Association and is an activity of much importance. The records immediately at hand in the Alumni office have enabled the Service to help our graduates in a manner that otherwise would be almost impossible, and less directly they have been of assistance in the efforts on behalf of the students. While the work of the Service is most intensive during the spring months, it carries on throughout the year, and rarely a day passes that a request does not come in from a graduate seeking assistance in employment matters, or from some organization asking for a graduate trained or experienced along a particular line. The Employment Service is expanding from month to month, as the number of contacts with employers is increased and as information is accumulated (by means of our alumni-record and employment forms) concerning the experience and the employment desires of our graduates.

All the faculties are being served in employment matters, but at present it is not being found possible to do so much for the other groups as for the graduates and students in Engineering. The order of possible service seems to be as follows: Engineering, Commerce, Arts, Medicine, and lastly women graduates and students. In spite of the present economic depression all but four of this year's Science graduates have already been placed, but it has been more difficult this spring to do as much as usual for the undergraduate engineers. Most of the prospective graduates in Commerce have also had one or more openings drawn to their attention, and much has been done for the undergraduates in this course as well as for those in Arts and Medicine.

Not only is the Employment Service benefitting the students and graduates (the latter including those who have been away from the University for some time), but we believe its work is also of benefit to the University. Graduates helped are friends made; and employers served satisfactorily cannot but be appreciative of Queen's—an appreciation that may have very tangible value in the course of time.

The expense of the Employment Service is borne, $1,500 by the Engineering Society and the remainder, up to another $1,500, by the University.

The Engineering Proceedings.

Following the placing of the Employment Service under the management of the Alumni Association, the Engineering Society last fall appointed the secretary of the Association editor of the *Proceedings of the Engineering Society.* It was thought that this annual volume, which is of interest almost exclusively to the Science graduates and which contains a chronological list of the Science classes and the addresses of their members, could be most efficiently compiled from the Association's records. It has hitherto appeared in the spring; it will henceforth be published during the summer months. Its cost is met by advertising and by voluntary subscriptions from the Science graduates.

Alumni Statistics.

The files of the Association show that the University has on April 20, 1930, 6,404 living graduates. Many of these graduates have taken courses in more than one faculty, and the totals of the different categories are as follows: Arts 3,852; Commerce 148; Medicine 1,509; Science 1,107; Theology 101. In addition there are 166 living Honorary Graduates. It is estimated that there are also about 2,500 ex-students who did not carry their course to completion. The list of deceased graduates contains 1,445 names.

The present addresses of 5,910 of our graduates are recorded, as well as approximately 15 per cent of our ex-students. The "No Address" list contains the names of 494 graduates. This list varies from week to week, and many names remain there for only a short time—immediate steps being taken upon the discovery of a wrong address to ascertain the correct one from next of kin or other references on record.

The graduates living in Canada number 4,864 and are distributed as follows: Prince Edward Island, 1; Nova Scotia, 41; New Brunswick, 35; Quebec, 343; Ontario, 3,566; Manitoba, 138; Saskatchewan, 262; Alberta, 235; British Columbia, 241; Yukon, 1; Northwest Territories, 1. There are 869 living in the United States and 177 in other countries.

University Endowment.

The Association again this spring approached the senior year in Science with the proposal to have their class-memorial take the form of twenty-year endowment insurance policies, one-half payable to the University. The scheme was again adopted, and by this means the sum of almost $5,000 will accrue to the University at the end of twenty years. The number of policies taken out was somewhat smaller than last year, a few of the men being refused for physical reasons and some others preferring to let their fifty-dollar pledge of 1926 stand instead of the insurance plan.

Under the new constitution of the Association, definite provision is made for the establishment of an Alumni Fund. Nothing has been done in connection with this fund as yet, but it provides a specific avenue for alumni financial assistance to the University during future years.

Association Finances

The financial statement for the Association year ended September 30, 1929, appeared in the *Review* of November 1929. It will be seen from this statement that the revenue of the Association for the period covered was $6,412.70. This included assistance by the University to the extent of $3,000. It appears that at present approximately two-thirds of this amount will meet the deficit of the Association for the current year.

Co-operation

The Association wishes to state its sincere appreciation of the unfailing co-operation of the administration, officials and staff of the University, of the Alma Mater Society, and of the Athletic Board of Control, during the past year.

Respectfully submitted,

G. J. SMITH,

Secretary-Treasurer.

QUEEN'S UNIVERSITY ALUMNAE ASSOCIATION

The Queen's University Alumnae Association begs to submit the following report for the year 1929-1930:—

The Association is composed of five organized branches in Montreal, Ottawa, Toronto, New York and Kingston. In centres where it has been decided not to organize, such as Hamilton, Winnipeg, etc., there are units of great vitality, and in scattered districts there are members who never fail to keep Queen's and the Association to the fore. To foster and keep alive this interest in scattered districts some alumnae who travel extensively have offered their services to speak on the work as occasion arises and their help so desired.

For years it has been a custom to entertain the women of the senior year at a dinner in the autumn, but as this came at a time when many were home for the Thanksgiving holidays, the entertaining will, in the future, be in the spring at the time of graduation.

At the annual dinner in 1929, we were charmed to have as our guest and speaker, Miss Margaret McKellar, M.D., C.M., LL.D., who for over forty years has worked as a Medical Missionary at Neemuch, Central India. Dr. McKellar's achievements have brought fame to herself, honour to her Alma Mater, and to multitudes her ministry has meant new life and hope, as well as relief from physical and mental suffering.

To Miss Mary White, B.A. with Honours, '29, medalist in Greek and Latin, also recipient of the Arts Research Scholarship, further distinction has come in being the successful candidate for the Scholarship award of the Canadian Federation of University Women.

The Association takes pride in Miss White's conspicuous success.

The "Alumnae News" continues to be the official organ of the Alumnae Association, being placed on a sounder basis. This year a copy has been sent to each alumna.

The active interest of the Association is centred in the raising of a sum sufficient to endow an Annual Travelling Scholarship for Queen's Women Graduates. In founding this scholarship, to be known as The Marty Memorial Foundation, the Association feels it will be perpetuating in a fitting manner, the memory of two such distinguished graduates as Aletta E. Marty, M.A., LL.D., and Sophia E. Marty, M.A., and in a measure expressing the loving admiration felt for them.

Respectfully submitted,

ADA BIRCH,

Secretary Q.U.A.A.

REPORT OF THE UNIVERSITY LECTURES COMMITTEE

During the past session the Committee endeavoured to carry out a well defined policy of bringing to the University for a visit of two or three days a number of distinguished scholars who, in addition to delivering public lectures, had sufficient time for more intimate contact with staff and students. The public lectures were without exception well attended and in some cases the audiences taxed the capacity of Convocation Hall where most of the lectures were held.

The following was the program for the session:

Dr. Isaiah Bowman, Director of the American Geographical Society:

The Central Andes.

Pioneer Areas of the World.

The Philosophy of Geography.

Professor Jacob Viner, of the University of Chicago:

The Problem of Reparations.

The International Bank.

Professor S. Goudsmit, formerly of the University of Leyden:

The Atomic Model in Modern Physics.

The Place of Statistics in Modern Physics.

Mr. John Erskine, well-known author and formerly professor at Columbia University:

Modern Aspects of Old Books.

Spenser's *Faerie Queene.*

Virgil's *Aeneid.*

Cervante's *Don Quixote.*

Professor Alfred Zimmern, Director of the School for International Studies, at Geneva:

International Relations and the British Commonwealth.

It is planned to continue the same policy next session when it is hoped that even greater interest will be taken.

Respectfully submitted,

W. A. MACKINTOSH,
Chairman.

REPORT OF SCHOOL OF NAVIGATION

The seventeenth session of the School of Navigation has just closed and the report of the work is submitted herewith. In spite of the depression in the shipping business on The Great Lakes, the attendance, while not up to the high level of last year, has been better than in most years. Nineteen men passed the examinations and Dominion certificates have been awarded as follows:

Master Coasting Steamer	4
Mate Coasting Steamer	4
Master Inland Water	2
Mate Inland Waters	8
Mate Minor Waters	1
	19

In addition to the 19 certificates awarded by the Government three diplomas have been granted to the candidates passing the higher examinations set by the university.

Captain A. Barrett has again borne the burden of the teaching and the uniform success of former years has been repeated this year. This little school so inconspicuous in the university is doing a fine work for the shipping men in the vicinity of Kingston and is becoming better known each year, even in places distant from Kingston, as shown by the numbers who come from rather remote towns and cities to attend the school.

Respectfully submitted,

A. L. CLARK.

LIST OF PUBLICATIONS OF THE STAFF SINCE MARCH 31st, 1929.

Professor Henry Alexander: *The Verbs of the Vulgate in their historical relationships.* American Speech, April, 1929.

Review of F. W. Bateson's *English Comic Drama.* Queen's Quarterly, Winter, 1930.

Professor J. H. Brovedani: *Pirandello and the Italian humorists.* The Dalhousie Review, October, 1929.

Professor E. L. Bruce: *The Sherritt Gordon Copper-Zinc Deposit—Northern Manitoba.* Economic Geology, Vol. 34, No. 5, August, 1929.

Genesis of Ore Deposits—Book of Popular Science, 1929.

Geology of the Sherritt Gordon Mine—Annual Report, Sherritt Gordon Mines Limited, October 1, 1929.

Reprinted, Engineering and Mining Journal, November 30, 1929.

Gold Deposits of Woman, Narrow, and Confederation Lakes, District of Kenora—Ontario Department of Mines, Vol. 37, Part IV.

Dr. James Cappon: *Bliss Carman's Beginnings.* Queen's Quarterly, Autumn, 1929.

Mr. A. H. Carr: *The University Extension Movement.* Queen's Review, March, 1930.

Professor George Herbert Clarke: *The Hasting Day,* a book of poems. J. M. Dent & Sons (London & Toronto), February, 1930.

The Tenant of Time, a poem. Queen's Quarterly, Spring, 1929.

Old, and *The Re-Lighting,* two poems, Queen's Quarterly, Autumn, 1929.

"No Man Hath Seen God," a poem, Toronto Saturday Night, 1929.

Reviews of *Marlowe and His Circle,* by Frederick S. Boas; *Shakespeare and His Fellow Dramatists,* edited by E. H. C. Oliphant; and *Hamlet,* edited by Joseph Quincy Adams. Queen's Quarterly, Winter, 1930.

Dean A. L. Clark: *More about new buildings.* Queen's Review, January, 1930.

Dr. W. T. Connell and Dr. W. D. Hay: *Cavernous Angioma of the Epidural Space with compression of the Spinal Cord.* Canadian Medical Association Journal xxii, 75, 77, 1930.

Professor C. A. Curtis: *Canada's Finance Act and the Gold Standard.* The Monetary Times (Toronto), May 3, 1929, Vol. 82, No. 18.

Amendment of Canada's Finance Act Necessary. The Monetary Times (Toronto), January 24, 1930, Vol. 84, No. 4.

Mr. Roy L. Dorrance: *Modern Methods of Teaching Electrochemistry.* An introduction to the Symposium, read at the Fifty-fifth meeting of the American Electrochemical Society, Toronto, 1929, and published in The Journal of Chemical Education, Vol. VII, No. 1, 1930.

Professor S. W. Dyde: *The Two Camerons.* Queen's Review, August, 1929.

Professor G. Harold Ettinger and Dr. James Miller: *Endocrine and other Anomalies in Anencephaly.* The Journal of Obstetrics and Gynaecology of the British Empire, Vol. 36, No. 3, 1929.

Professor G. Harold Ettinger: *An Investigation of the Pulmonary Circulation of the Guinea-pig.* Preliminary Report. Proc. Phys. Soc., The Journal of Physiology, LXVII, p. xlii, 1929.

Professor L. F. Goodwin: *Synthetic Nitric Acid and Ammonia.* Paper read at the Shawinigan Falls Chemical Society, abstract of which was published in The Canadian Chemistry and Metallurgy of February, 1930.

Professor J. A. Gray: *Television.* Queen's Quarterly, Vol. 36, p. 285, 1929.

The Absorption and Scattering of X-Rays. International Critical Tables, Vol. 6, p. 8, 1929.

Professor J. A. Gray and A. J. O'Leary: *The Internal Absorption of Gamma Rays.* Nature, Vol. 123, p. 568, 1929.

Professor C. F. Gummer: *Circle.* Encyclopedia Britannica, September, 1929.

Triangle. Encyclopedia Britannica, September, 1929.

Professor J. E. Hawley: *Generation of Oil in Rocks by Shearing Pressures.* Parts I & II, Bulletin American Association Petroleum Geologists, Vol. 13, 1929, pp. 303-365. Part III, Vol. 14, April, 1930.

Dr. Hay and Dr. W. T. Connell: *Cavernous Angioma of the Epidural Space with Compression of the spinal cord.* Canadian Medical Association Journal, xxii, 75 77, 1930.

Professor G. Humphrey: *Freud and the Configurationists.* in vol. 3, Mind and Behavior, of *Man and his World*, Northwestern Essays in Contemporary Thought. New York, D. Van Nostrand & Co., pp. 47 to 69, 1929.

Professor Reginald Jackson: *Locke's Version of the Doctrine of Representative Perception.* Mind, January, 1930.

Professor W. G. Jordan: *The Book of Job, its Substance and Spirit.* Macmillan Company, September, 1929.

Arthur Samuel Peake, 1865-1929. Queen's Quarterly, Autumn, 1929.

Professor A. Brooker Klugh: *The Effect of the Ultraviolet Component of Sunlight on Certain Marine Organisms.* Canadian Journal of Research, Vol. 1, No. 1, May, 1929.

Bird Migration. Farmer's Advocate, Christmas Number.

The Photography of Birds at their Nests. American Photography, June, 1929.

Photographing Autumn Colouration. American Photography, October, 1929.

Mr. E. C. Kyte: *"Two English Libraries."* Queen's Review, February, 1930.

Professor Duncan McArthur: (Editor of Queen's Quarterly): *Quebec,* 1629-1929. Queen's Quarterly, Summer, 1929.

Three Centuries of Canadian History. Review of Reviews (American), June, 1929.

The Canadian Immigration Problem. A survey of the problems of immigration in Canada, prepared for the meeting of the Institute of Pacific Relations, held at Kyota, Japan, and reprinted in The Japanese Advertiser, October, 1929.

Dr. R. R. MacGregor: *Amyotonia Corgerita.* Canadian Medical Journal, August, 1929.

Professor G. J. MacKay: *The Makers of Queen's—J. C. Gwillim, B.Sc.* Queen's Review, December, 1929.

Dean John Matheson: *Distinguished Graduates of Queen's—S. A. Mitchell, Ph.D., LL.D.* Queen's Review, November, 1929.

Professor N. Micklem: *The Son of Man.* Queen's Quarterly, Spring, 1929.

Professor James Miller: *Degenerative Changes in a Thyroid Gland the result of treatment by Lead Ionization* and

A Case of Multiple Amyloid Tumours of the Neck. Both published in Journal of Technical Methods and Bulletin of the International Association of Medical Museums, 1929, xii, 208-213.

The Relative Frequency of Tuberculosis of Bovine Origin in Europe and America. Canadian Public Health Journal, Nov. & Dec., 1929.

Professor James Miller and Professor G. H. Ettinger: *Endocrine and other Anomalies in Anencephaly.* Journal of Obstetrics and Gynaecology of the British Empire, 1929. Vol. 35, No. 3.

Professor L. A. Munro: *The Determination of the Anti-Rachitic Properties of Oat Oil.* Scientific Agriculture, Vol. 10, No. 5, January, 1930.

Professor J. H. Orr: See under Professor G. B. Reed.

Professor G. B. Reed: *Preservation of Red Blood Cells for Hemolytic Reactions.* Journal of Infectious Diseases, XLV, 247-254, 1929.

The Bacteriology of Rheumatism. Canadian Public Health Journal, XXII, 554-560, 1929.

With Christine E. Rice: *The Influence of Iron on the Pigmentation of Acid-fast Bacteria.* Journal of Bacteriology, XXVII, 407-412, 1929.

With N. E. Gibbons: *The Effects of Autolysis in Sterile Tissues on Decomposition.* Journal of Bacteriology, XXIX, 73-88, 1930.

With N. E. Gibbons: *Hemophilus Sp. in Skin Abscesses of Rabbits and Guinea Pigs.* Journal of Infectious Diseases, XLV, 1-6, 1929.

With Dr. J. H. Orr and Dr. W. A. Campbell: *A Comparison of the Action of B. Welchii Toxin with other Haemotoxin on Human Red Cells in vitro.* Canadian Journal of Research, II, 91-100, 1930.

Professor J. K. Robertson: *Continuity and Discontinuity in the Development of Physics.* Queen's Quarterly, Summer, 1929.

Introduction to Physical Optics, vii, 422 pages, 8vo. cloth, D. Van Nostrand Company, Inc., 1929.

With Keith A. MacKinnon: *Striations in High Frequency Discharges.* Nature, July 13, 1929.

Dr. D. C. Rose: *Energy Losses of Electrons in Mercury Vapour.* Nature, Vol. 125, p. 460, March 22, 1930.

Professor James A. Roy: *Brother André.* Queen's Quarterly, Autumn, 1929.

Professor R. G. H. Smails: *Shares of No Par Value.* The Accountant, London, June 15, 1929.

The Working of a Cost System. Gee & Co. (Publishers) Ltd., London, March, 1930.

Lt.-Col. K. L. Stevenson: *The Rivers of Eden.* Expository Times, April, 1929.

The Mountain of Mystery, a novel under the pseudonym of "Kenlis Langley," Thomas Nelson publishers, April, 1929.

Principal R. Bruce Taylor: *Higher Education—French-Canadian and British,* article printed in "La Presse" of Montreal, 1929.

Address to St. Andrew's Society of New York, November 30th, 1929, and published by that Society in their book entitled Saint Andrew's Day, New York, 1929.

Professor H. L. Tracy: *Implicit Stage Directions in Euripides.* Transactions of the American Philological Association, vol. 59, p. xxviii (Abstract).

Professor Reginald G. Trotter, *The Bibliography of Canadian Constitutional History.* Papers of the Bibliographical Society of America, vol. xxii, part 1, 1928, Chicago, 1929.

Republic and Dominion as Neighbors. Kiwania Magazine, September, 1929.

Review of "A History of Canada," by Carl Wittke. Journal of Modern History, September, 1929.

Review of "Sir Charles Bagot in Canada: A Study in British Colonial Government," by G. P. de T. Glazebrook. American Historical Review, October, 1929.

Review of "A Guide to the Principal Sources for Early American History (1600-1800) *in the City of New York," by Evarts B. Greene and Richard B. Morris.* Canadian Historical Review, March, 1930.

Professor C. E. Walker: *Business Law,* one of a series of Text Books for use in the Vocational and Commercial High Schools of Ontario. Ryerson Press Ltd., Toronto, 1929.

TREASURER'S REPORT

Financial Statement—April 1, 1929, to March 31, 1930

SUMMARY OF REVENUE AND EXPENDITURE

Total Revenue—all sources		$694,383 59
Expenses—		
Educational	$394,466 17	
Administrative	298,511 77	
		692,977 94
Surplus for the year		1,405 65

DETAILS OF REVENUE

Income from Students:			
Arts—Intra-mural		71,536 55	
Arts—Extra-mural		39,689 36	
Applied Science		54,278 50	
Medicine		48,803 55	
Summer School		13,919 00	
Banking		4,702 00	
School of Navigation		140 00	
			233,068 96
Income from Investments:			
Mortgages	28,801 19		
Less Expenses of Collection	1,352 25		
		27,448 94	
Bonds and Other Investments	121,727 28		
Less Bond Expense	786 51		
		120,940 77	
		148,389 71	
Less Interest Deductions:			
Scholarships	8,309 06		
Physics Reserve	100 00		
Alma Mater Reserve	30 10		
Douglas Chair	1,000 00		
Annuity Fund	4,125 00		
Medical Library	100 00		
1909 Foundation	75 00		
Residence Reserve	886 94		
Gymnasium Reserve	120 27		
		14,746 37	
			133,643 34
Income from Rents		7,126 70	
Less Expenses, General	2,076 50		
Rogers House	604 92		
Residences	389 01		
		3,070 43	
			4,056 27
Income from Government Grants:			
Ontario Government		300,000 00	
Dominion Government		1,000 00	
Dairy School Grant		1,200 00	
			302,200 00

Income from Other Sources:			
School of Navigation		193 95	
Chartered Accountants		17,018 00	
Grant Hall Rents		260 00	
Light and Heat:			
Rink	600 00		
Ban Righ Hall	2,500 00		
Residences — Light	140 00		
Residences in the Grounds	72 91		
		3,312 91	
Jubilee Interest Fund		30 00	
Workshop		567 18	
Janitors' Supplies		32 98	
			21,415 02
			694,383 59

DETAILS OF EXPENDITURES

A.—EDUCATIONAL

Latin

Salaries—Regular	9,350 00	
Summer	215 00	
Supplies	2 50	
		9,567 50

Greek

Salaries—Regular	8,550 00	
Summer	60 00	
		8,610 00

Hebrew

Salaries	2,500 00	
Less Queen's Theological College	1,000 00	
		1,500 00

German

Salaries—Regular	5,100 00	
Summer	52 50	
Supplies	13 77	
		5,166 27

French

Salaries—Regular	11,616 91	
Summer	362 00	
Supplies	88 40	
		12,067 31

Spanish

Salaries—Regular	5,550 02	
Summer	41 00	
Supplies	38 44	
		5,629 46

English

Salaries—Regular	19,900 00	
Summer	385 00	
Supplies	49 68	
		20,334 68

History

Salaries—Regular	12,525 00	
Summer	370 50	
Supplies	95 40	
		12,990 90

Economics

Salaries—Regular		9,738 36	
Summer		252 50	
Supplies		5 61	
			9,996 47

Banking

Salaries		1,185 00	
Presiding Examiners		2,133 25	
Supplies		3,487 21	
Office		1,720 86	
		8,526 32	
Less paid by Bankers' Ass'n	5,743 57		
Incidentals	18 18		
		5,761 75	
			2,764 57

Commerce and Administration

Salaries		8,400 00	
Supplies		43 94	
			8,443 94

Chartered Accountants

Salaries		5,100 00	
Office		1,720 87	
Tutors		2,061 00	
Supplies	4,282 46		
Less Credits	8 80		
		4,273 66	
			13,155 53

Philosophy

Salaries—Regular		8,200 00	
Summer		261 00	
Supplies		42 16	
			8,503 16

Mathematics

Salaries—Regular		20,650 00	
Summer		227 50	
Supplies		126 44	
			21,003 94

Physics

Salaries—Regular		23,463 36	
Summer		107 50	
Assistant		416 00	
Supplies		2,355 48	
			26,342 34

Chemistry

Salaries—Regular		25,448 70	
Assistant		352 32	
Summer		101 00	
Supplies		7,720 20	
			33,622 22

Biology

Salaries—Regular		13,606 00	
Summer		81 00	
Supplies		1,033 35	
Reserve for unused appropriation		116 65	
			14,837 00

Geology

Salaries—Regular	7,850 00	
Summer	88 50	
Supplies	78 64	
		8,017 14

Miller Research Chair in Geology

Salary	4,500 00	
Supplies and Equipment	1,193 57	
Reserve for unused appropriation	511 43	
		6,205 00

Mineralogy

Salaries—Regular	2,676 72	
Summer	35 00	
Supplies	384 97	
		3,096 69

Chemical Engineering

Salaries—Regular	5,100 00	
Supplies	2,033 08	
		7,133 08

Electrical Engineering

Salaries	10,125 00	
Supplies	1,375 56	
Reserve for unused appropriation	124 44	
		11,625 00

Civil Engineering

Salaries	21,500 00	
Supplies	167 28	
Reserve for unused appropriation	382 72	
		22,050 00

Note—Also carried to Reserve, 1929 Balance, $713.55.

Mechanical Engineering

Salaries	12,995 00	
Supplies	235 40	
Reserve for unused appropriation	364 60	
		13,595 00

Mining and Metallurgy

Salaries	13,110 00	
Supplies	1,763 42	
Reserve for unused appropriation	336 58	
		15,210 00

Anatomy

Salaries	5,450 00	
Supplies	1,864 82	
Reserve for unused appropriation	135 18	
		7,450 00

Bacteriology

Salaries	7,950 00	
Assistant	119 99	
Supplies	1,176 89	
Reserve for unused appropriation	23 11	
		9,269 99

Medicine

Salaries		9,300 00

Pathology

Salaries	11,065 00	
Supplies	801 97	
Reserve for unused appropriation	98 03	
	11,965 00	
Less paid by Dept. Public Health	2,100 00	
		9,865 00

Physiology

Salaries	6,550 00	
Supplies	404 20	
Reserve for unused appropriation	595 80	
		7,550 00

Pharmacology

Salary	4,225 00	
Supplies	124 92	
Reserve for unused appropriation	75 08	
		4,425 00

Surgery

Salaries		9,420 00

Undistributed Medical Expense

Medical Salaries	6,590 00	
Less interest Douglas Endowment	1,000 00	
	5,590 00	
Supplies and Expenses	1,307 56	
		6,897 56

Public Lectures

Expenses		1,144 03

Arts Research

Fellowships	1,500 00	
Ottawa Summer School	500 00	
		2,000 00

Science Research

Salaries and Grants	6,450 00	
Supplies	2,240 58	
Reserve for unused appropriation	999 42	
		9,690 00

Physical Education

Salaries		2,782 64

School of Navigation

Salaries	650 00	
Supplies	59 68	
		709 68

Summer School

Salaries	11,975 00	
Calendar and Bulletin	520 07	
		12,495 07

B.—ADMINISTRATIVE

Offices

Banking Office—Salaries	2,751 66	
Supplies	690 07	
		3,441 73

Charged to Banking	1,720 86		
Accounting	1,720 87		
		3,441 73	
Carruthers Hall			
Salary		187 00	
Supplies		14 09	
			201 09
Dean of Arts			
Salaries		2,076 00	
Supplies		125 56	
			2,201 56
Dean of Science			
Salaries		2,306 00	
Supplies		95 97	
			2,401 97
Fleming Hall			
Salary		187 00	
Supplies		8 40	
			195 40
Gordon Hall			
Salary		728 00	
Supplies		68 03	
			796 03
Richardson Laboratory			
Salary		813 00	
Supplies		79 09	
			892 09
Medical Offices			
Salaries		2,450 00	
Supplies		257 02	
Printing		316 92	
			3 023 94
Nicol Hall			
Salary		448 00	
Supplies		52 80	
			500 80
Principal's Office			
Salaries		11,300 00	
Supplies		96 52	
			11,396 52
Dean of Women			
Salaries		3,350 00	
Supplies		22 05	
			3,372 05
Office of Registrar and Treasurer			
Salaries		24,140 28	
Expenses and Minor Supplies		892 93	
Stamps	5,081 00		
Less supplied to other offices	1,106 54		
	3,974 46		
Less sale of stamps	1,383 41		
		2,591 05	

Printing	4,405 84		
Stationery	2,741 05		
	7,146 89		
Less sale of exam. papers	229 73		
		6,917 16	
			34,541 42

Note—This includes stationery supplied to other offices

Buildings

Janitors' supplies, repairs, expenses, water, gas, etc., per Schedule "A"		10,581 84	
Sundry repairs		200 66	
Janitors' wages		11,705 90	
Night watchman		936 00	
Carpenter		1,615 00	
Central Plant		32,197 70	
Superintendent of Buildings		1,000 00	
Electrician—Salary		1,959 80	
Supplies		79 33	
Fire insurance		4,380 00	
			64,656 23

Libraries

Salaries and wages		18,897 64	
Books and supplies	10,909 99		
Less interest on Medical Endowment	100 00		
		10,809 99	
Reserve for unused appropriation		1,890 01	
			31,597 64

Sundry

Advertising		1,419 39	
Annuities	10,112 31		
Less interest on Securities	4,125 00		
		5,987 31	
Contingencies		2,674 02	
Presiding Examiners		4,360 17	
Queen's Quarterly	4,155 68		
" Contributors	2,632 68		
	6,788 36		
Less revenue	1,476 23		
		5,312 13	
Travelling		6,030 41	
Taxes		4,974 40	
Commission and exchange		99 27	
Douglas tutorships		1,353 55	
Grounds		3,564 18	
Broadcasting		77 46	
Dairy School salaries		1,200 00	
Central Plant Power		659 52	
Pensions		1,200 00	
Alcohol		57 48	
Sunday Services		300 65	
Conservatory		64 07	
General Alumni Association		2,300 00	
Employment Service		1,500 00	
			43,134 01

Securities written off	6,601 02	
Reserves—New Gymnasium	50,000 00	
Contingent Replacements	19,500 00	
Gordon Hall Attic	16,500 00	
Old Gymnasium alterations	7,000 00	
		99,601 02
		692,977 94

SCHEDULE A

Buildings

	Totals	Janitors' Supplies	Repairs	Expenses
Carruthers Hall	793 14	61 08	662 18	69 88
Fleming Hall	399 29	72 99	231 35	94 95
Gordon Hall	2,996 12	36 71	2,580 70	378 71
Gymnasium	275 18	38 88	86 33	149 97
Medical Laboratories	737 72	171 66	260 13	305 93
Nicol Hall	296 40	50 23	106 19	139 98
New Arts Building	2,078 67	169 47	1,893 41	15 79
Medical Building	230 70	91 77	53 02	85 91
Ontario Hall	1,128 72	117 83	856 72	154 17
Observatory	69 56	12 20	46 96	10 40
Old Arts Building	624 53	44 05	526 34	54 14
Mill Building	8 88		2 55	6 33
Douglas Library	758 88	251 53	432 56	74 79
Richardson Laboratory	184 05	165 44	18 61	
	10,581 84	1,283 84	7,757 05	1,540 95

SCHEDULE B

Health Insurance

Balance at credit March 31, 1929	5,427 05	
Received from Students	7,263 65	
		12,690 70
Payments for Expenses—To Hospitals	5,641 50	
Salaries	1,500 00	
Expenses	166 07	
		7,307 57
Balance at credit		5,383 13

SCHEDULE C

Khaki University Loan Fund

Balance, March 31, 1929		5,842 33
Loans to Students	100 00	
Repayments	100 00	

SCHEDULE D

Securities

	Rate	Par Value	Maturity
Held by Bank of Montreal:	%		
Canadian Northern Railway	4½	86,000 00	1943
Canadian Northern Railway	4½	114,000 00	1942
Held by Toronto General Trusts Corporation:			
Belgo Paper Co.	6	10,000 00	1943
City of Belleville	6	50,000 00	1942
Canadian Northern Railway	5	50,000 00	1954

	Rate %	Par Value	Maturity
Canadian Northern Ry, Deb. Stock	4	48,666 66	1930
Dominion of Canada	5½	200,000 00	1934
Canadian Vickers	6	5,000 00	1947
Dominion Square Corp.	6	15,000 00	1948
Duke Price Power Co.	6	20,000 00	1966
Gatineau Power Co.	5	35,000 00	1956
Gatineau Power Co.	6	5,000 00	1941
General Steel Wares Ltd.	6	5,000 00	1952
City of Hamilton	5	33,000 00	1937–40
City of Hamilton	6	8,000 00	1940
Lake St. John Power & Paper Co.	6½	10,000 00	1947
P. T. Legare	6	25,000 00	1947
County of Lincoln	5½	50,000 00	1942
City of London	6	12,000 00	1941
Montreal Coke & Manufacturing Co.	5½	10,000 00	1947
Montreal Light, Heat & Power	5	10,000 00	1951
Montreal Tramways Ltd.	5	20,000 00	1955
Montreal Tramways Ltd.	5	10,000 00	1941
City of Niagara Falls	6	25,849 47	1938–40
City of Niagara Falls	5	4,000 00	1938–41
City of Niagara Falls	5	19,669 11	1938–51
Province of Ontario	5½	50,000 00	1942
Province of Ontario	6	125,000 00	1943
Province of Ontario	6	130,000 00	1930
City of Toronto	6	151,000 00	1935–45–6
City of Toronto	5	50,000 00	1936
City of Toronto	5	35,000 00	1948–49
City of Toronto	6	3,000 00	1942
City of Toronto	6	4,000 00	1945
City of Toronto	6	6,000 00	1948
City of Toronto	6	2,000 00	1946
City of Toronto	6	35,000 00	1937–46
Wayagamack Pulp & Paper	6	10,000 00	1951
Western Steel Products	6	15,000 00	1948
City of Windsor	6	50,000 00	1937–39
Winnipeg Electric	6	10,000 00	1954
Township of York	5	763 62	1945–52
Township of York	6	49,427 91	1942–46
Township of East York	5½	38,246 91	1930–48
T. Eaton Realty Co.	5	25,000 00	1949
Province of Ontario	5	2,000 00	1948
City of Oshawa	5	26,000 00	1930
City of Oshawa	5	27,000 00	1931
Dominion of Canada	5½	2,000 00	1934
Canadian National Railway	5	25,000 00	1969
Burns & Co.	5½	10,000 00	1948
Canadian Steamships Ltd.	6	10,000 00	1941
United Securities Limited	5½	10,000 00	1952
Maple Leaf Milling Co.	5½	10,000 00	1949
Simpson's Limited	6	10,000 00	1949
Manitoba Power	5½	10,000 00	1951
In Safety Deposit Box—Band of Montreal:			
Dominion Foundries & Steel	625 shares	625,000 00	
Dominion Iron & Steel	60 shares Pref.	6,000 00	

	Rate %	Par Value	Maturity
Brown Co. Ltd.	50 shares Pref.	5,000 00	
Bank of Toronto	4 shares	400 00	
Toronto Mortgage Co.	23 shares	1,150 00	
Port Alfred Pulp & Paper Co.	20 shares	2,000 00	
Insull Utility Investment	750 shares	50,000 00	
Study Corporation Bond	6%	5,000 00	1948
Call Loans:			
Dominion Securities Corporation		22,540 01	
Jas. Richardson & Sons Limited		200,000 00	
		2,167,213 03	

Book Value, $2,102,141.39.

QUEEN'S UNIVERSITY—BALANCE SHEET, MARCH 31, 1930

ASSETS

Investments—Productive:		
Bonds, Debentures and Stocks at Book Value Per Schedule	2,027,141 39	
Bonds—Special Annuity Funds	75,000 00	
Mortgages and Real Estate	453,682 80	
		2,555,824 19
Investments—Non-productive:		
Lands, Buildings and Equipment	395,016 84	
Central Heating Plant	200,000 00	
New Library Building	398,823 36	
New Mill Building	4,778 39	
		998,618 59
Sundry Assets:		
Loans to Students	997 67	
Coal on Hand—Central Heating Plant	4,630 00	
Cash in Bank and on Hand	24,706 61	
Cash in Savings Account	15,000 00	
Microscopes on Hand	1,691 24	
Sundry Accounts Receivable	110 86	
Summer School Association	1 00	
Kingston General Hospital	11,331 78	
Students' Union Building Expenses	16 45	
Women's Residence	92 25	
		58,577 86
		3,613,020 64

LIABILITIES

Subscribed Funds	2,281,635 22	
1926 Campaign	499,529 20	
		2,781,164 42
Trust Funds:		
Annuity Bond Reserve	75,000 00	
Alma Mater Reserve	620 28	
1909 Foundation	1,576 00	
1910 Arts	3 88	
1912 Arts	226 40	
Khaki University	5,842 33	
Medical Library Foundation	2,000 00	

Physics Foundation		2,000 00	
Levana Society—Red Room		313 41	
Scholarship Funds:			
Capital	150,941 15		
Interest at Credit	21,348 01		
		172,289 16	
Residence Reserve		19,793 10	
Engineering Society Loan Fund		206 04	
W. G Miller Memorial Chair		500 00	
Queen's Pipe Band		5 35	
Richardson Fellowship		250 00	
Special Loan Fund		155 60	
Social Service—National Research Council		1,991 33	
Union Memorial Hall		2,102 99	
Middle and Upper School Fees		50 00	
			284 925 87
Current:			
Accounts Payable		19,028 46	
Students Paid in Advance		1,619 18	
Health Insurance—Per Schedule		5,383 13	
Athletic Fees		2,946 76	
Geo. Grant		4 40	
			28,981 93
Reserves:			
For Deposits, Laboratory		32,088 97	
Locker Rents		1,317 50	
Banking Fees		20,000 00	
Chartered Accountants		8,500 00	
Contingent Loss on Securities		71,308 73	
Library Deposits		1,134 13	
Mackintosh Report		54 55	
Central Plant		2,613 36	
Mill Building Equipment		3,748 48	
Gymnasium		4,944 27	
Physics Reserve—Current Balance		132 97	
Social Service Research		100 00	
Reserve for Unused Appropriations		7,966 60	
Building Fund Reserve		228,000 00	
			381,609 56
Surplus:			
Balance, March 31, 1929		134,933 21	
Add Surplus Revenue, 1930		1,405 65	
			137,638 86
			3,613,020 64

Respectfully submitted,

W. E. McNEILL,

Treasurer.

AUDIT REPORT

For the Year ending March 31st, 1930

We have examined the accounts of Queen's University for the year ending March 31st, 1930, and certify that the attached Balance Sheet is drawn so as to show the Financial position of the University at date of audit, subject to the following observations:

Productive Assets.

The par value of the Bonds and Debentures is about $65,000 in excess of the book value but this is subject to realization—a list is attached.

Mortgages.

The mortgage securities have been examined and found in order. While there are many mortgages in arrears we consider the reserve for contingent loss ample to take care of those that may have to be written off.

We have received certificates from the Toronto General Trusts Corporation and the Bank of Montreal as to securities held by them and have inspected the securities in the safety deposit box.

Non-Productive Assets.

Land and Buildings—As noted in previous reports these are shown at a valuation arrived at years ago and not at real values.

Sundry Assets.

Loans to Students—This is an old balance that probably will not be collected.

Coal Inventory—Prof. Arkley has given us a certificate as to the amount on hand.

Bank balances are certified to by the Bank.

The account against Kingston General Hospital is for heating. This was paid on April 2nd, 1930.

Liabilities.

The amount at credit of the 1926 Campaign Fund represents collections to date less expenses.

Revenue and Expenditure.

We have ascertained that Interest on Bonds, Rents and Fees from students have all been accounted for.

Authority vouchers and cheques, properly signed, have been produced for all disbursements.

Schedules of Revenue and Expenditure are attached to this report.

BURNS & ENGLAND,
Chartered Accountants.

Kingston, April 25th, 1930.